CONTENT

A STUDY ON CUSTOMER SATISFACTION OF IPHONE IN TIRUCHIRAPALLI

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ABSTRACT

The study, "A Study on Consumer Preference and Satisfaction towards Apple iPhone with Reference to Coimbatore City," assesses the perception of Coimbatore residents about iPhones, in relation to issues such as brand reputation, product quality, and customer service, and analyses their satisfaction levels. However, among the innovative features of Apple iPhone, camera quality and iOS are the significant factors driving consumer preference, although high costs, frequent app crashes, and battery issues lower satisfaction. The descriptive research involved a survey of 100 respondents through questionnaires, which showed that students are the largest user group and most prefer recent models for affordability. Statistical tools such as percentage and chi-square analysis indicate no significant correlation between age and buying cost or gender and camera quality. Key findings highlight affordability, improved technical reliability, and customer support besides the exploitation of privacy and iOS features in the marketing strategy as a way to sustain brand appeal. The conclusion is that this will improve the satisfaction and loyalty of customers in the market of Coimbatore. Key words: Apple iPhone, preference, consumer satisfaction, Coimbatore city, marketing strategy, loyalty, challenges, preferred features.

INTRODUCTION OF THE STUDY

Apple Inc., which was set up in 1976 by Steve Jobs, Steve Wozniak and Ronald Wayne has changed from being a small manufacturer into a worldwide leader in Technology and Innovation. One of its notable products, iPhone has become a benchmark of the smartphone sector owing to its design, innovative technology and usability. Since its introduction, Apple has generated a loyal community across the world as a distinct ecosystem brings together its hardware and software and services, allowing to create a strong customer loyalty. In Coimbatore, a city known for its growing technological adoption and consumer awareness, the iPhone has established a strong presence. Today consumers show inclination towards their premium smartphones that offer advanced features and long-term value. However, the market comprises different economic backgrounds and preferences, an understanding of the reason behind consumer satisfaction and preference is essential. This study investigates how

Coimbatore residents perceive the iPhone on attributes such as brand reputation, product quality, pricing, and consumer service in addition to their general satisfaction by purchase behaviour.

STATEMENT OF THE PROBLEM

In today's highly competitive smartphone market, consumer preference and satisfaction play a crucial role in determining the success of a product. Apple iPhone, being a premium brand, it faces dual problems of meeting consumer expectations, while it is trying to maintain its standing in this market, which is highly influenced by factors like price sensitivity, technological advancements, and brand perception. Coimbatore being a city with a varying consumer base, it becomes important to identify the factors which incline towards the choice of iPhone and how these factors contribute to consumer satisfaction. Though, iPhone has a reputation for its innovation and quality, there are always some questions regarding its affordability, availability, etc. This study aims at finding out the major factors shaping the consumer preference and satisfaction towards an iPhone in Coimbatore and to know the extent to which Apple's offerings meet the expectations of the target audience.

OBJECTIVES OF THE STUDY

1. To analyze the reason of customers to prefer iPhones over other mobile phones.
2. To find out the problems faced by the respondents.
3. To find out the level of satisfaction of consumers by the iPhone.

REVIEW OF LITERATURE

Qu, R., Chen, J., Li, W., Jin, S., Jones, G. D., & Frewer, L. J. (2023), Consumers' Preferences for Apple Production Attributes: Results of a Choice Experiment. This article explores consumer preferences for specific attributes of apple production, including environmental sustainability and product quality, based on a choice experiment.

Mahalakshmi, M. K., & Kavitha, K. (2021), A Comparative Study on Customers' Satisfaction towards Android Operating System and iPhone Operating System in Mobile Phones. The article compares customer satisfaction between Android and iPhone operating systems. It analyzes factors such as usability, security, and performance, highlighting the preferences of various user groups.

Mohamed, I. A., Sha, Y. M., Ahmed, M. S., & Badhusha, M. H. N. (2021), Consumer Perception towards Apple Products with Reference to Tiruchirappalli District This research investigates consumer perceptions of Apple products in the Tiruchirappalli district. It discusses brand reputation, quality, and consumer loyalty as significant determinants of preference.

Saranya, G., & Yoganandan, G. (2019), Brand Preference towards Smartphones among College Students in Coimbatore City, Tamil Nadu This study examines the brand preference for smartphones among college students in Coimbatore, Tamil Nadu. It identifies factors like price, features, and brand loyalty as major influences on purchasing decisions.

Jasiqi, B. (2019), Customer Buying Behavior of Smartphones: A Study of the Customer Buying Behavior of Smartphones by Taking the Example of Apple iOS and Android Smartphones This study analyzes customer buying behavior concerning Apple iOS and Android smartphones. It highlights the role of factors like brand image, pricing, and innovation in shaping purchase decisions.

RESEARCH METHODOLOGY

Research design

A research design defines the structure or framework within which the research is conducted. This research is based on descriptive research design to systematically analyze the preference and satisfaction towards Apple iPhone in Coimbatore city.

Area of Study

The research has been conducted in Coimbatore City, focusing on its diverse customer base

Sample size

A total of 100 respondents were surveyed for this study. This sample size was selected to ensure a manageable yet representative group of participants, enabling meaningful analysis of custom1er trends.

Sampling technique

The study adopted the Convenience sampling technique, which involves selecting respondents who are readily accessible and willing to participate. This method enabled the collection of data from a wide range of respondents, such as students, working professionals, and self- employed individuals, within Coimbatore City

Data collection

The data collected for the research are: 1) Primary data 2) Secondary data

Primary data: The primary data has been collected by using questionaries to gather information on demographics, buying preferences, challenges faced and overall satisfaction levels with Apple iPhones.

Secondary data: The secondary data are collected by using articles, journals, magazines, websites and other related projects.

Limitations

1. The study focuses exclusively on Coimbatore City, which may not represent customer behavior in other regions.
2. The use of Convenience sampling may introduce bias, as it depends on the accessibility and willingness of respondents.
3. The short duration of study limits insights into long-term consumer behavior trends.

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of the study on the topic, "A STUDY ON CONSUMER PREFERENCE AND SATISFACTION TOWARDS APPLE IPHONE WITH REFERENCE TO COIMBATORE CITY", is presented based on a sample of 100 respondents. This collected data are classified and tabulated.

The data analyzed using the following statistical tools:

- Percentage Analysis
- Chi-square test
- Rank Analysis

Percentage Analysis

Percentage analysis is a statistical method used to interpret and present data by calculating the proportion of each category in relation to the total. It provides a clear understanding of trends, preferences, and patterns by expressing data in percentages, making it easy to compare and analyze different variables in the study

Classification	No of respondents	Percentage
Age		
Below 15	4	4
16 to 30	60	60
31 to 45	20	20
Above 45	16	16
Gender		
Male	71	71
Female	29	29
Marital Status		
Married	24	24
Unmarried	76	76

Employment		
Self employed	14	14
Salaried employee	33	33
Student	45	45
Unemployed	8	8
Income		
Below 30,000	17	17
30,000 to 60,000	14	14
60,001 to 90,000	15	15
Above 90,000	15	15
None	39	39
Main reason to prefer Apple iPhone over others		
Design and build quality	15	15%
iOS operating system	18	18%
Camara quality	28	28%
Brand reputation	21	21%
Privacy and security features	18	18%
Preference on buying Apple iPhone		
Latest model available	27	27%
Recent but not the latest model	36	36%
Old model for affordability	24	24%
No strong preference	13	13%
Likelihood of recommending Apple iPhone		
Extremely likely	20	20%
Likely	34	34%
Neutral	34	34%
Unlikely	10	10%
Extremely unlikely	2	2%
Challenges faced on iPhone usage		
Cost of accessories	20	20%
Operating system updates	28	28%
App availability	16	16%
Difficulty in transferring data to non- Apple devices	13	13%
Battery life	23	23%
Technical issues faced by iPhone usage		
Frequent app crashes	37	37%
Overheating	33	33%
Software bugs	24	24%
Slow performance	6	6%
Opinion on cost of accessories		
Very expensive	57	57%
Moderately priced	29	29%

Reasonable	14	14%
Durability of iPhone		
Excellent	26	26%
Good	30	30%
Average	31	31%
Poor	9	9%
Very poor	4	4%
Quality of iPhone		
Excellent	27	27%
Good	42	42%
Average	24	24%
Poor	6	6%
Very poor	1	1%
Ease of using Apple iPhone		
Very easy	18	18%
Easy	36	36%
Neutral	29	29%
Difficult	10	10%
Very difficult	7	7%
Opinion on Apple iPhone's value for price		
Excellent value	27	27%
Good value	33	33%
Fair value	27	27%
Poor value	11	11%
Very poor value	2	2%
Rating the experience of Apple's customer support		
Excellent	26	26%
Good	40	40%
Fair	22	22%
Poor	5	5%
Very poor	2	2%
I haven't used customer support	5	5%
Total	100	100%

Interptrtation

The data shows the majority of respondents are aged 16 to 30 (60%), male (71%), and unmarried (76%). Students make up the largest employment group (45%), with most having no income (39%). The primary reasons for preferring the iPhone are camera quality (28%) and brand reputation (21%). The most preferred iPhone type is a recent but not latest model (36%). While 34% are likely to recommend the iPhone, frequent app crashes (37%) and overheating (33%) are the most reported technical issues. Accessories are perceived as very expensive by 57%, and durability and quality are rated as "good" by 30% and 42%, respectively. The iPhone is considered to offer "good value" by 33% of respondents, and customer support is rated as "good" by 40%.

Chi Square

The Chi-Square Analysis is used mainly test the independence of the attribute factors. In others words chi-square test is used to the whether one factor has significant influence over the other. The relationships between the two factors are calculated at 5% (0.05) level of significance. The formula for calculating the Chi-square test is:

Chi – square test.

$$\chi^2 = \sum \frac{(O – E)^2}{E}$$

Where:

X^2 is the value for chi square

$\sum$ is the sum

O is the observed frequency E is the expected frequency

Degree of freedom is calculated as follows

Degree of freedom = (r-1) (c-1)

Where:

R = number of rows

C = number of columns 1] Age and cost of buying

Age	Below 50,000	50,000-1,00,000	1,00,001-1,50,000	Above 1,50,000	Total
Below 15	2	1	1	0	4
15 to 30	19	28	9	4	60
31 to 45	4	8	4	4	20
Above 45	2	4	4	6	16
Total	27	41	18	14	100

Degree of freedom DF= (r-1) × (c-1)

= (4-1) × (4-1)

= 3×3

= 9

O	E	O- E	[O- E]²	[O- E]² /E
2	1.08	0.92	0.84	0.78
19	16.2	2.8	7.84	0.48
4	5.4	-1.4	1.96	0.36
2	4.32	-2.32	5.38	1.25
1	1.64	-0.64	0.40	0.24
28	24.6	3.4	11.56	0.47

O	E	O- E	[O- E]²	[O- E]² /E
8	8.2	-0.2	0.04	0.005
4	6.56	-2.56	6.55	1
1	0.72	0.28	0.07	0.10

9	10.8	-1.8	3.24	0.3
4	3.6	0.4	0.16	0.04
4	2.88	1.12	1.25	0.43
0	0.56	-0.56	0.31	0.55
4	8.4	-4.4	19.36	2.30
4	2.8	1.2	1.44	0.51
6	2.24	3.76	14.13	6.31
Total	100	0	74.53	15.125

Calculation X^2

Chi square value	Degree of freedom	Significant value	Table value	Significant/ Not Significant	Null Hypothesis
15.125	9	0.05	16.92	Not Significant	Accepted

Interpretation

The result of chi- square test reveals that the calculated chi- square value 15.125 is less than the table chi- square value (16.92) at 5% level of significance and therefore, there is no relation between age and buying cost. Thus, the hypothesis is that the relationship between the two factors does not hold good. Hence, the null hypothesis is accepted.

FINDINGS
1. iPhone Preference: Camera quality (28%), brand reputation (21%), and iOS (18%). 36% prefer recent but not the latest model for affordability.
2. Challenges: Frequent app crashes (37%), OS updates (28%), and battery issues (23%). 57% find accessories very expensive.
3. Feature Perception: iOS ranks highest, followed by display and camera quality. Highest satisfaction is with iOS updates and privacy features.
4. Value and usability: 60% rate value of iPhone as good to excellent. 54% find iPhones easy to use.
5. Chi square results: No significant relationship between age and buying cost and also gender and camera quality.
6. Customer support: 66% positively view Apple's customer support.

SUGGESTION
1. Improve affordability: 36% prefer the recent model iPhone over the latest model available. So, improving its affordability boost the sales of iPhone.
2. Challenges faced: Address app crashes and improve battery life to enhance user satisfaction. 57% find Apple's accessories very expensive so considering its reduction in price may also help in customer satisfaction.
3. Promote important features: Highlight the iOS operating system and privacy/ security features in promotion to strengthen brand appeal.
4. Value for price: Offer flexible pricing or financing options to enhance value perception among cost- sensitive users.
5. Customer support: Expand and improve customer support services to maintain high satisfaction levels and address technical issues effectively.

CONCLUSION

The Study on Customer Preference and Satisfaction towards Apple iPhone with reference to Coimbatore city surveyed 100 users. It found that most of the users of iPhones were students (46%). The study highlights the factors like camera quality, brand reputation, and iOS drive preference, while challenges such as high costs, app crashes, and battery issues impact satisfaction. While features like iOS updates and privacy/security are highly valued, affordability and technical improvements remain key areas for enhancement. Addressing these challenges can strengthen Apple's appeal and customer loyalty in this market.

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OPTIMIZING QUICK-COMMERCE OPERATIONS: A MULTI-DIMENSIONAL FINANCIAL AND OPERATIONAL ANALYSIS OF BLINKIT (2011–2022) USING POWER BI AND SQL

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ABSTRACT

Financial clarity is paramount in the high-velocity quick-commerce sector, where data-driven insights separate market leaders from their competitors. This paper presents a multi-dimensional analysis of Blinkit's (formerly Grofers) operational and financial trajectory from 2011 to 2022. Utilizing a robust ETL (Extract, Transform, Load) process, raw data was cleaned and standardized via SQL to resolve inconsistencies in product labeling and inventory metrics. An interactive financial dashboard was subsequently engineered using Microsoft Power BI to visualize $1.20M in total sales data across 8,523 unique items. The study reveals a significant "Tier 3 Phenomenon," where Tier 3 cities emerged as the primary revenue drivers, contributing $472,133 in sales with the highest average customer ratings. Furthermore, the analysis identifies "Fruits and Vegetables" and "Snack Foods" as the core product pillars, together accounting for nearly 30% of total revenue. The dashboard employs advanced DAX measures to track KPIs such as average sales velocity ($141) and health-conscious marketing trends, evidenced by the high visibility scores (333.85) assigned to "Low Fat" inventory. While challenges regarding historical data gaps and tool constraints are addressed, the research underscores the strategic value of interactive BI tools in reducing information overload for stakeholders. The paper concludes by proposing a future framework for integrating Python-based predictive analytics and live API streams to transition from descriptive to prescriptive financial management.

KEY WORDS: Blinkit, Quick Commerce, Power BI, SQL, Data Visualization, Tier 3 Market Analysis, Business Intelligence (BI), ETL Process, Financial Dashboard, Retail Analytics.

INTRODUCTION

The landscape of Indian retail has undergone a seismic shift over the last decade, transitioning from traditional brick-and-mortar "Kirana" stores to a sophisticated, technology-driven ecosystem known as Quick Commerce (Q-Commerce). At the forefront of this digital revolution is Blinkit, a company that has come to symbolize the rapid evolution of consumer expectations in India's urban centers. In today's fast-paced, data-driven world, providing financial clarity and operational transparency is not just an advantage but a necessity for survival in the e-commerce industry.

The Evolution: From Grofers To Blinkit:

Blinkit's journey is a microcosm of the broader startup evolution in India. Founded in 2013 as Grofers, the company initially operated on a traditional delivery model, focusing on

scheduled grocery deliveries and bulk savings. For nearly a decade, the business model relied on warehouse-to-doorstep logistics, where delivery times were measured in hours or even days.

However, as competition intensified and consumer patience decreased, a strategic pivot became inevitable. In 2021, the company underwent a major rebranding from Grofers to Blinkit, signaling a radical shift toward the **10-minute delivery** promise. This transition turned the company into a key player in the "Quick Commerce" segment, a niche characterized by high-frequency orders and hyper-local fulfillment. This shift involved not just a change in name, but a complete overhaul of financial complexity and operational logistics, as the company moved from large, centralized warehouses to a dense network of "dark stores" or local outlets.

The Quick Commerce Industry In India

The Indian online grocery market has seen explosive growth between 2011 and 2022, driven by increased smartphone penetration and a growing middle-class demand for convenience. Startups in this space, like Blinkit, often operate in high-pressure environments where they must manage significant capital burn, frequent funding rounds, and razor-thin margins to capture market share. Monitoring key metrics such as revenue, expenditure, and funding cycles is critical for stakeholders to assess the sustainability of such rapid growth.

PROBLEM STATEMENT: THE CHALLENGE OF SCALE

As Blinkit expanded its footprint across India, the complexity of its financial and operational data grew exponentially. The primary challenge addressed in this paper is the difficulty of maintaining a centralized and accurate view of the company's health when data is scattered across multiple reports and formats.

Specifically, the company must track and analyze:

- **Massive Inventory Volume:** Managing and visualizing performance for **8,523 unique items** is a monumental task. Without advanced tools, identifying which specific products drive revenue versus those that simply occupy shelf space is nearly impossible.
- **Diverse Outlet Categories:** Blinkit operates through various store formats, including **Grocery Stores, Supermarket Type 1, Type 2, and Type 3**, each with vastly different sales velocities and item visibility scores.
- **Geographic Complexity:** Sales performance varies significantly across **Tier 1, Tier 2, and Tier 3 cities**. For instance, while Tier 3 cities might show higher customer engagement, Tier 2 cities often handle bulkier inventory in terms of cumulative item weight.

Without an interactive platform, decision-makers are prone to missing critical trends, leading to inefficient resource allocation and missed investment opportunities. This paper presents a solution to these challenges by utilizing **Power BI and SQL** to transform raw, disconnected data into a strategic business intelligence tool.

LITERATURE REVIEW

The theoretical foundation of this study intersects two critical domains: the psychological impact of Data Visualization in retail management and the structural evolution of the Indian Quick-Commerce (Q-Commerce) sector. While Business Intelligence (BI) is well-established in traditional retail, its application in the high-velocity Q-Commerce environment remains an emerging area of research.

Business Intelligence (Bi) And Information Overload

In contemporary retail management, the sheer volume of daily transactions encompassing sales, inventory shifts, and customer ratings often leads to a state of **Information Overload**. Scholarly research indicates that when decision-makers are presented with raw data in tabular formats, the cognitive load required to process it increases significantly, often leading to "decision paralysis" (Phillips-Wren & Adya, 2020).

- **Cognitive Load Theory:** Interactive dashboards address this by employing "Progressive Disclosure"—a design principle where users are shown high-level KPIs first and can "drill down" into specifics as needed. Studies by Alfatmi and Chaitanya (2024) demonstrate that visual hierarchies (using size, color, and positioning) allow managers to identify outliers and anomalies, such as low-performing outlets or supply chain bottlenecks, up to 75% faster than through manual spreadsheet analysis.
- **Real-Time Visualization:** Unlike traditional periodic reporting, real-time BI tools provide "Decision Velocity." By eliminating the lag between data generation and analysis, managers can respond to emerging trends—like a sudden surge in "Snack Food" demand—without waiting for end-of-month financial statements (Hopara, 2025).

The Research Gap: Data Structures in Indian Q-Commerce

Despite the wealth of literature on global retail BI, a significant academic gap exists regarding the specific operational and financial data structures of Indian Q-Commerce startups like Blinkit.

- **Unique Operational Models:** Most existing retail papers focus on "Modern Trade" (supermarkets) or "General Trade" (local stores). However, Q-Commerce operates on a "Dark Store" model—micro-fulfillment centers that are closed to the public and optimized for 10-minute picking. The data generated by these outlets is fundamentally different in terms of frequency and delivery-path variables.
- **Market-Specific Nuances:** Indian retail is uniquely segmented into **Tier 1, 2, and 3 cities**, each with distinct consumer behaviors regarding "Item Fat Content" and "Item Visibility." Current global models often fail to account for the geographic performance discrepancies inherent in the Indian market.
- **Lack of Integrated Case Studies:** While industry reports (e.g., Mordor Intelligence, 2025) provide market shares, there is a scarcity of peer-reviewed research that provides a technical walkthrough of how raw Q-Commerce data is cleaned using SQL and transformed into interactive Power BI models.

This paper seeks to bridge this gap by providing a detailed case study of Blinkit's financial and operational data from 2011 to 2022, offering a blueprint for how startups can leverage BI to navigate the complexities of the Indian digital economy.

METHODOLOGY AND DATA ARCHITECTURE

This section provides a technical deep dive into the data structure, the rigorous cleaning process using SQL, and the mathematical logic applied within Power BI to generate actionable insights.
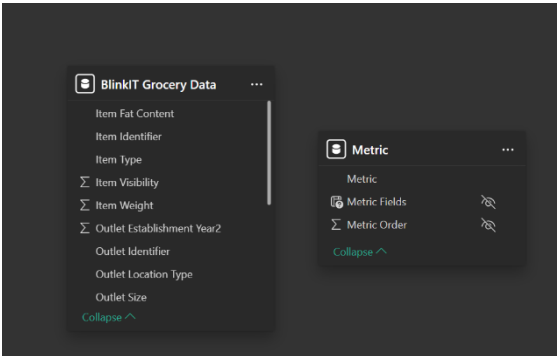
Figure 1: Power BI Data Model Star Schema

Data Schema and Variable Description

The foundation of this analysis is the BlinkIT Grocery Data.csv dataset, which contains 8,523 unique records. The schema is designed to capture a 360-degree view of retail operations, from product characteristics to outlet demographics.

Key variables in the dataset include:

- **Item Identifier:** A unique alphanumeric code assigned to each product (e.g., FDX32, NCB42).
- **Item Fat Content:** A categorical variable identifying if a product is "Low Fat" or "Regular." This is crucial for analyzing health-conscious consumer trends.
- **Item Type:** Categorizes products into 16 distinct groups, such as "Fruits and Vegetables," "Snack Foods," and "Household" items.
- **Outlet Establishment Year:** The year a specific delivery outlet was founded (ranging from 2011 to 2022 in this study).
- **Outlet Size & Location:** Categorizes outlets by physical scale (Small, Medium, High) and geographic tier (Tier 1, Tier 2, Tier 3).
- **Total Sales:** The primary numerical KPI representing the revenue generated per item per outlet.
- **Rating:** Customer satisfaction scores on a scale of 1–5.

The ETL Process (Extract, Transform, Load)

Raw data in the quick-commerce sector is often "noisy" due to manual entry errors and inconsistent naming conventions. To ensure data integrity, a multi-stage ETL process was performed using **SQL**.

Data Cleaning and Transformation Steps:
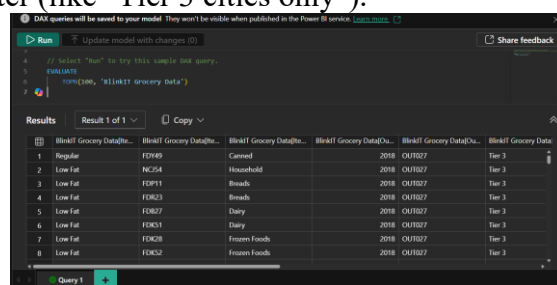
Standardizing Categorical Values: A primary challenge was the inconsistent labeling of fat content. SQL UPDATE queries were used to consolidate variations like "LF," "low fat," and "Low Fat" into a single, standardized "Low Fat" category to prevent fragmented analysis.

Handling Null Values: The Item_Weight and Item_Visibility columns contained missing values for certain outlets. SQL was used to impute these gaps using the average weight for that specific Item_Identifier across other stores, ensuring the statistical model remained robust.

Data Type Optimization: Columns like Outlet_Establishment_Year were converted from floating-point numbers to integers to optimize memory usage within the Power BI data model.

Analytical Logic: DAX Measures

To transform raw columns into a dynamic dashboard, custom **Data Analysis Expressions (DAX)** were authored. These "Measures" allow the dashboard to update instantly when a user applies a filter (like "Tier 3 cities only").

Figure 2: Power BI Data Analysis Expressions (DAX)

- **Total Sales (Revenue):**
  Total Sales = SUM(Blinkit_Data[Sales]) This measure aggregates the revenue across all selected dimensions.
- **Average Sales ($141):**
  Average Sales = AVERAGE (Blinkit_Data [Sales]) Used to identify the "Sales Velocity" per transaction, helping managers understand if growth is driven by high-value orders or high-volume low-cost orders.
- **Number of Items (8,523):**

Total Items = COUNT (Blinkit_Data[Item_Identifier]) Provides a snapshot of the inventory breadth currently being managed.

- **Average Rating (3.9):**
  Average Rating = AVERAGE(Blinkit_Data[Rating]) This serves as the primary gauge for customer satisfaction and service quality across different outlet types.

DATA ANALYSIS & FINDINGS

This section explores the core insights derived from the interactive dashboard, moving beyond simple numbers to understand the "why" behind the performance of various business segments. By analyzing 8,523 records, we can identify critical trends in geographic performance, product demand, and marketing effectiveness.

The Tier 3 Phenomenon: Geographic Sales Dominance
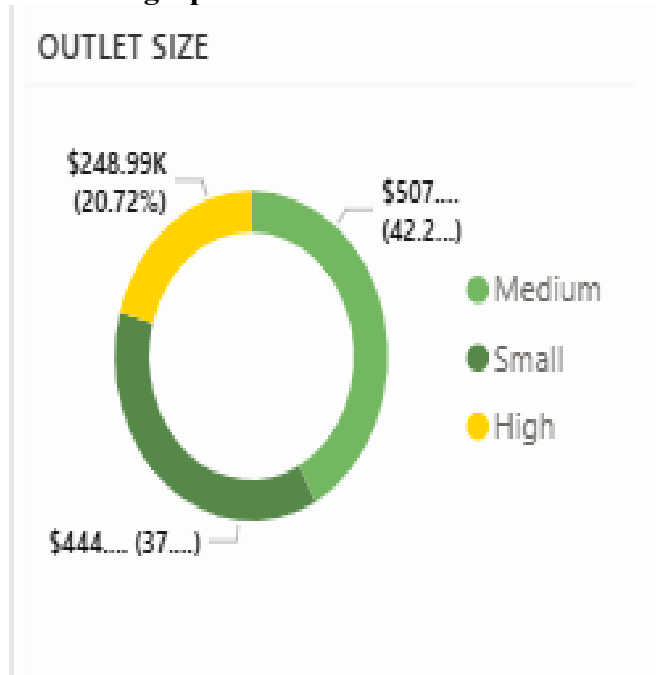
Figure 3: Sales by Outlet Location

One of the most significant findings of this study is the overwhelming performance of **Tier 3 cities**. While one might expect Tier 1 metros to lead in digital commerce, the data reveals a different story:

- **Sales Performance:** Tier 3 locations contributed a staggering **$472,133** in total sales, significantly outperforming Tier 1 and Tier 2.
- **Customer Satisfaction:** These regions also maintain the highest average ratings, consistently hitting the **3.9 to 4.0** mark.
- **The Analysis (The "Why"):** This dominance suggests a high demand for organized quick-commerce in smaller cities where traditional large-scale supermarkets are less prevalent. The success in Tier 3 likely stems from **lower competition** from modern trade retailers and a higher reliance on home delivery for diverse product categories that were previously hard to access locally.

Product Performance: Identifying Revenue Drivers

Analysis of the 16 item types shows that while Blinkit carries a broad inventory, revenue is heavily concentrated in specific daily-essential categories.
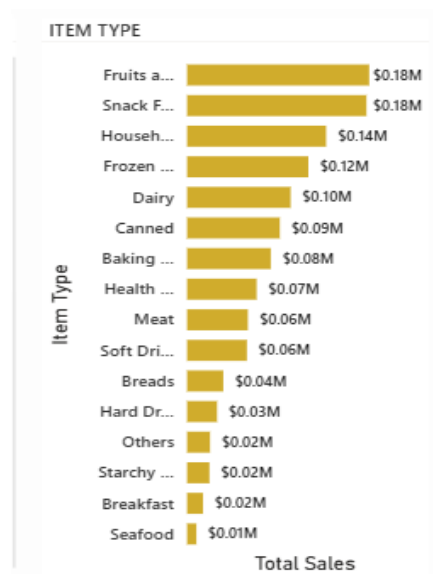
Figure 4: Total Sales by Item Type

- **Top Categories: "Fruits and Vegetables"** ($178,124) and **"Snack Foods"** ($175,433) emerge as the primary revenue drivers.
- **Consumer Behavior:** These two categories alone account for nearly 30% of total revenue. This indicates that customers primarily use Blinkit for **high-frequency, perishable items** and impulse purchases (snacks), rather than long-term "pantry loading" (like household cleaning supplies).
- **Operational Insight:** For management, this suggests that dark-store inventory should prioritize the freshness and supply chain speed of these two categories to maintain the 10-minute delivery promise for the most sought-after products.

Visibility vs. Sales: The Health-Conscious Strategy

The dashboard provides a unique look at how product placement (Visibility) correlates with item characteristics like fat content.
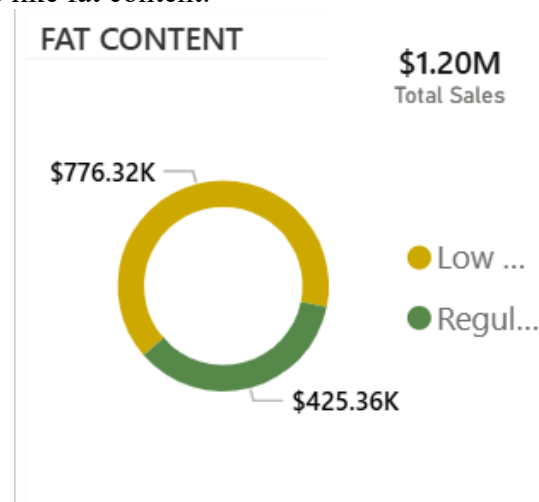
Figure 5: Total Sales by Fat Content

- **The Visibility Metric:** Interestingly, **"Low Fat"** items received the highest visibility score of **333.85**, despite "Regular" fat items also having significant sales volume.
- **Strategic Marketing:** This disparity suggests a deliberate marketing strategy. By giving higher visibility to "Low Fat" options, Blinkit is likely positioning itself as a "health-conscious" and modern choice for the urban Indian consumer.

- **Correlation:** While visibility is high for low-fat items, the sales remain competitive between both types. This implies that while marketing pushes the "healthy" narrative, the actual consumer purchase pattern is balanced, requiring the company to maintain a robust stock of both varieties.

Performance by Outlet Age

The analysis of **Outlet Establishment Year** (2011–2022) shows that older outlets (established around 2018) often show more stable sales peaks compared to the very newest outlets. This suggests a "maturation period" for quick-commerce dark stores, where localized customer trust and operational efficiency take roughly 12–24 months to reach peak performance.

VISUALIZATION & DASHBOARD DESIGN

This section details the user interface (UI) and user experience (UX) strategy behind the dashboard. The primary goal was to create a "command center" that translates complex retail data into immediate strategic insights through purposeful design and interactivity.

Dashboard Overview

The dashboard is designed as a single-page interactive report that provides a 360-degree view of Blinkit's operations. By centralizing disparate data points from sales by fat content to geographic performance it eliminates the need for stakeholders to cross-reference multiple spreadsheets.
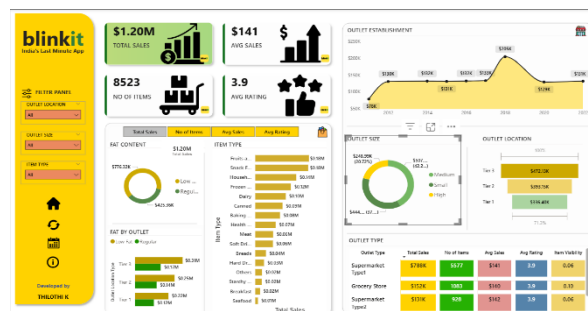
Figure 6: Full Interactive Financial Dashboard for Blinkit (2011–2022)

Design Principles: Choice of Visuals

Every chart in the dashboard was selected based on its ability to represent specific data types effectively, ensuring that the "story" behind the numbers is clear:

- **Donut Charts (Fat Content & Outlet Size):** These were chosen to represent **part-to-whole relationships**. For example, the "Total Sales by Fat Content" donut chart allows a user to instantly see the market share of "Low Fat" versus "Regular" items. It is ideal for categorical data with a limited number of segments.
- **Bar Charts (Item Type):** A horizontal bar chart was used for "Total Sales by Item Type." Because there are 16 distinct categories, a bar chart provides the necessary vertical space for readable labels while making it easy to compare the relative performance of "Fruits and Vegetables" against "Soft Drinks" at a glance.
- **Funnel Maps (Outlet Location):** To visualize geographic distribution, a funnel map was utilized to show the hierarchical transition of sales from Tier 1 down to Tier 3 cities, emphasizing where the largest volume of business is concentrated.
- **Matrix Cards:** These provide a comprehensive, tabular view of all metrics (Sales, Average Sales, Ratings) broken down by "Outlet Type," serving as a quick reference for detailed performance audits.

Interactive Features: "Slicing and Dicing"

The true power of the dashboard lies in its interactivity, which moves beyond static reporting to active data exploration.

- **The Filter Panel:** Located at the top or side of the dashboard, this panel includes "Slicers" for **Outlet Location Type, Outlet Size, and Item Type**.
- **Dynamic Filtering:** When a user selects "Tier 3" from the location filter, every other visual on the dashboard—the total sales, the average rating, and the item performance—instantly updates to show only data for Tier 3 cities. This allows managers to "slice" the data by geography and "dice" it by product type to find specific local trends.
- **Cross-Highlighting:** Clicking on a specific segment in one chart (e.g., clicking the "Low Fat" segment in the donut chart) automatically highlights the corresponding revenue and rating data in all other charts. This enables a deep-dive analysis into how health-conscious products perform specifically in Supermarket Type 1 versus Type 3 outlets.

By employing these interactive features, the dashboard transforms from a passive display into a strategic tool that encourages data-driven thinking among decision-makers.

CHALLENGES AND LIMITATIONS

While the developed dashboard successfully provides a comprehensive overview of Blinkit's financial and operational journey, several technical and data-related hurdles were encountered during the research process. Acknowledging these limitations is essential for maintaining the academic integrity of the study and providing context for the results.

Data Gaps and Historical Records (2011–2014)

The primary challenge faced during the data collection phase was the availability of granular financial records from the company's earliest years.

- **Missing Records:** Significant data gaps were identified for the period between 2011 and 2014. During this initial startup phase, public reporting was less frequent, and the transition from Grofers' early model to its later iterations resulted in inconsistent data logging.
- **Data Imputation and Estimation:** To maintain a continuous timeline for the dashboard, certain missing values had to be estimated based on available industry benchmarks and subsequent growth trajectories. While this allows for a continuous visual trend, it introduces a margin of error regarding the precise financial figures for those specific early years.

Tool Constraints and Technical Limitations

The selection of Microsoft Power BI as the primary visualization tool brought several advantages, but also specific constraints that impacted the final scope of the project.

- **API and Live Integration:** One of the most significant limitations of the standard Power BI version used for this research is its handling of live API streams. While Power BI is capable of real-time updates, doing so with massive, high-velocity datasets typical of a quick-commerce platform like Blinkit often requires "Premium" licensing and complex gateway configurations.
- **Historical vs. Real-Time Analysis:** Consequently, this dashboard primarily relies on historical datasets rather than live, streaming data. This means that while the dashboard is highly effective for retrospective strategic planning, budgeting, and forecasting, its utility for immediate, minute-to-minute operational decision-making is limited.
- **Customization Boundaries:** Certain visual customizations and advanced predictive modeling features were restricted by the software's native capabilities. Future iterations would benefit from the integration of Python or R scripts within the Power BI environment to overcome these visualization boundaries and add more robust predictive analytics.

CONCLUSION & FUTURE SCOPE

The final section of this research paper summarizes the primary outcomes of the study and outlines a roadmap for future technological advancements that could further enhance the analytical capabilities of the Blinkit financial dashboard.

Summary of Research Findings

This project successfully demonstrated the transformation of large-scale, fragmented retail data into a centralized, interactive business intelligence tool. By processing a dataset covering the period from 2011 to 2022, the dashboard effectively synthesized **$1.20 million in total sales data** into meaningful, actionable insights.

The analysis revealed critical operational trends:

- **Market Opportunity:** The clear dominance of **Tier 3 cities** in both sales volume ($472,133) and customer satisfaction indicates a massive untapped potential for quick-commerce expansion in semi-urban India.
- **Product Strategy:** The high performance of "Fruits and Vegetables" and "Snack Foods" highlights the categories that drive daily user engagement and immediate revenue.
- **Strategic Visibility:** The concentration of visibility in "Low Fat" products shows how digital shelf space is being used to influence consumer perception and health-oriented branding.

In conclusion, the dashboard has proven that even for a complex startup environment like Blinkit's, **data visualization** reduces information overload and allows stakeholders to make evidence-based decisions rather than relying on intuition.

Future Scope and AI Integration

While the current dashboard provides an excellent retrospective view of performance, the next phase of development should transition from **descriptive analytics** (what happened) to **predictive analytics** (what will happen).

- **Predictive Sales Forecasting:** By integrating **Python or R scripts** directly into the Power BI environment, future versions can utilize machine learning algorithms—such as Random Forest or ARIMA models—to forecast sales for the **2023–2025 period**. These forecasts would be based on the established 2011–2022 historical trends, accounting for seasonal spikes and market growth rates.
- **AI-Driven Customer Insights:** Future integration of **Natural Language Processing (NLP)** could allow executives to "ask" the dashboard questions in plain English (e.g., "Which category will likely grow in Tier 2 cities next quarter?") and receive instant visual answers.
- **Automated Anomaly Detection:** Implementing AI-based monitoring could automatically alert managers to sudden drops in outlet ratings or unexpected sales dips in specific regions, enabling proactive rather than reactive management.
- **Live API Integration:** Transitioning to a live data environment via cloud-based API connections would allow the dashboard to provide minute-by-minute updates, making it an essential tool for real-time inventory and logistics management.

By embracing these advanced technologies, the Blinkit financial dashboard can evolve from a reporting tool into a comprehensive **Predictive Business Intelligence Ecosystem**, ensuring long-term sustainability and competitive advantage in the volatile quick-commerce market.

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DATA AVAILABILITY STATEMENT

- The data and Power BI model supporting the findings of this study are available in https://github.com/thilothik/Future_DS_01 or are available from the corresponding author upon reasonable request.

BEYOND METROS: UNLEASHING INNOVATION IN INDIAN SMES AND START-UPS THROUGH TIER-2 CITY ECOSYSTEMS

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ABSTRACT

In earlier days, the India's innovation ecosystem solely focused on metropolitan hubs like Bengaluru, Mumbai and Delhi. So, This study challenges those earlier days by the drastic growth that's happening in the SMEs and start-ups in Tier-2 and tier-3 urban cities like Jaipur, indore, lucknow, Coimbatore, tenkasi, and many more. Through various methods approach, the research identifies that the unique drivers of innovation in these regions, such as lower operational costs, local talent, government incentives, innovation, creativity, untapped markets and reverse migration. Simultaneously, it also highlights their challenges and limitations, including limited access to funding, talent retention, limited networking opportunities, etc…The paper argues that Tier-2 and Tier-3 ecosystems foster a distinct model of innovation driven by local problem-solving, frugal innovation, niche expertise, which are essential for inclusive economic growth. The study concludes by proposing a multi-stakeholder framework with targeted recommendations for policymakers, investors, and academic institutions to strategically nurture these regional innovation powerhouse.

INTRODUCTION

A drastic change is happening in today's India's start-up world. In earlier days, most of the new start-ups were started and registered in big cities like "Bengaluru or Mumbai". But, now the start-ups are starting to start their business in "Tier-2 and Tier-3" cities, its really a significant growth for India. That said, according to NASSCOM (2023), almost half of the start-ups are registered and doing business in "Tier-2 and Tier-3" cities, such cities likely are Jaipur, Indore, Coimbatore, Tenkasi, Patna, Bhubaneswar and many more cities.

CASE STUDIES: SUCCESS STORIES FROM TIER 2 CITIES

Zoho Corporation (Tenkasi, Tamil Nadu)Zoho has become a global leading market even though it started in a small town in Tenkasi, Tamil Nadu. They sticked to their idea of making affordable softwares and strive towards it, regardless of their lack of infrastructure and equipments. Its quite intriguing "how they made this far" and achieved significant growth.This case helps explain how firms from smaller towns can participate in globally competitive markets.

LITERATURE REVIEW: ECOSYSTEMS, INNOVATION AND THE URBAN-RURAL DIVIDE

Innovation Ecosystem

A Innovation ecosystem is a very dynamic network which consists of crucial players like universities, VCs, corporation, mentors , government, investors, industries and incubators.

These actors work together like a system to collaborate, share resources and provide support to help new ventures develop, grow and commercialize ideas, fostering, supportive environment for rapid innovation and economic development, where different parallel startups thrive together. In essence, Innovation does not occur independently. It is embedded within ecosystems where institutional support, knowledge flows, and resource availability jointly influence how and where innovation expand.

Tier-2 and 3 cities will become growth Powerhouses[1]

- Over the last decade, entrepreneurship migrated from metros to smaller cities. In 2026, its transition become popularized. Around 2L start-ups recognized with DPIIT more than 48% has sprouted from Tier 2 and 3 cities. Cities like Jaipur, pune, Bhubaneswar, chandigarh, surat, etc.., Will host some of the fastest growing start-ups.

 The shift is driven by three major forces:

- Unlocking new consumer markets through digital infrastructure and e-commerce.
- Reverse migration of talent speaking affordability and quality of life.
- Local innovation hubs and incubation centres that is backed by government.

RESEARCH GAP

Although many studies discuss the growth of innovation ecosystems and the rise of Tier-1 & Tier-2 cities, most of them still remains in descriptive in nature. There is limited understanding of how really these ecosystems actually functioning in the real world is still vague and unclear, especially in terms of support systems, collaboration, among actors, and access to resources.

Due to this gap, it is difficult to determine whether emerging innovation ecosystems in smaller cities are strong and sustainable or just policy-driven. Understanding their real functioning in the real-world contexts is important to assess their role in regional development and inclusive growth.

RESEARCH OBJECTIVES

The main objectives of this study is to examine how innovation ecosystems function in Tier-2 & Tier-3 cities in India.

So, the key objectives are:

- To understand and identify the key actors and institutional support systems that shapes innovation ecosystems in Tier-2 & Tier-3 cities.
- To scrutinize how well these ecosystems function in real-world contexts, with specific focus on collaboration, access to resources, and sustainability.
- And to look into the contribution of emerging innovation ecosystems to regional development and inclusive growth.

METHODOLOGY

This study adopts a qualitative, exploratory research design to look into innovation ecosystems in Tier-2 & Tier-3 cities in India. A single case study approach is attached, focusing on Zoho corporation, which wasorginated in Tenkasi, Tamil Nadu. This case was selected as a critical example of an innovation driven firm, which achieved global competitiveness outside major metropolitan hubs.

This study actually relies on secondary data sources, including:

- Company publications and from official website informations.
- And from reports published by medias.
- Policy documents and industry reports related to innovation and entrepreneurship.

These sources were used just to understand the organizational context, growth, model approach and ecosystems interactions associated with case.

ANALYSIS AND DISSCUSSION

Key Actors and Ecosystem support

- Zoho corporation's growth highlightening the key role of ecosystem actors in Tier-2 & Tier-3 cities. By just using affordable local talent and limited digital tools, the company was able to compete on a global scale, even from a small town base like Tenkasi. Demonstrating a innovative model of ecosystem functioning for emerging cities.

Functioning of Innovation Ecosystems

- The case shows that ecosystems from smaller cities functions differently from the metro hubs. Firms from smaller cities rely more on self-reliance, collaboration, and digital adoption than on large networks or venture capital. Zoho's model demonstrates a practical pathway for innovation outside traditional urban hubs.

Regional Impact and Sustainability

- Zoho's operations contribute to local employment, talent retention, and entrepreneurial inspiration, showing that even smaller cities can foster inclusive and sustainable development. In essence, even non-metro ecosystems can produce globally competitive firms while just strengthening regional growth.

CONCLUSION

- Thus, The study examined the functioning of innovation ecosystems in Tier-2 & Tier-3 cities in India through a case study of Zoho corporation.
- The findings shows that even smaller cities can foster innovation through local talent, collaboration, and digital adoption, even without extensive metropolitan resources.
- Further more, Zoho's illustration shows that such smaller ecosystem can contribute to regional development, talent retention, and inclusive growth.
- These insights highlightening the potential of non-metro innovation ecosystems and provide guidance for future research and policy support in emerging urban contexts.

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INVESTIGATING THE ANTECEDENTS AND CONSEQUENCES OF TRUST IN ONLINE PURCHASE DECISIONS

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ABSTRACT

Trust plays a crucial role in shaping consumers' decisions when engaging in online shopping environments. This study investigates the antecedents that foster consumer trust and the consequences that arise from it during online purchase decisions. Drawing on existing theories of consumer behavior and e-commerce, the research identifies factors such as website quality, perceived security, brand reputation, and customer reviews as key determinants of trust. The study further examines how trust influences consumer attitudes, purchase intentions, and long-term loyalty toward online retailers. Using quantitative analysis based on survey data from online shoppers, the findings reveal that higher levels of trust significantly enhance consumers' willingness to buy and their satisfaction with online transactions. The results highlight the importance of building and maintaining trust as a strategic component for online businesses seeking to strengthen customer relationships and sustain competitive advantage in the digital marketplace.

KEYWORDS: Trust, Online Purchase Decisions, E-Commerce, Consumer Behavior

INTRODUCTION

The rapid growth of e-commerce has transformed the way consumers search for information, compare products, and make purchase decisions. Unlike traditional retail settings, online shopping involves higher levels of uncertainty due to the lack of physical interaction, making trust a central element in consumer decision-making. When purchasing online, consumers must rely on their perceptions of website reliability, data security, and brand credibility to assess potential risks.

Understanding what builds trust (antecedents) and how trust influences buying behavior (consequences) is therefore essential for online businesses. Factors such as website design, customer service quality, privacy protection, and peer reviews can shape consumer trust, which in turn affects satisfaction, purchase intention, and long-term loyalty.

This study aims to explore both the antecedents and consequences of trust in the context of online purchase decisions. By identifying the key drivers of consumer trust and analyzing its impact on behavioral outcomes, the research contributes to a deeper understanding of how

trust can enhance customer engagement and improve the performance of online retailers in an increasingly competitive digital marketplace.

NEED OF THE STUDY

In today's digital era, consumers increasingly depend on online platforms for their purchasing needs. However, the absence of face-to-face interaction, physical product evaluation, and immediate service response creates uncertainty and perceived risk in online transactions. Under these conditions, trust becomes a critical factor that determines whether a consumer proceeds with or abandons a purchase.

Despite the growing importance of e-commerce, many online businesses still struggle to understand the specific elements that build consumer trust and how this trust influences actual buying behavior. Existing studies often focus on either the factors leading to trust or its outcomes, but few examine both aspects together within a unified framework.

Therefore, there is a need for comprehensive research that explores both the antecedents (factors influencing trust) and consequences (effects of trust on behaviour) in online purchase decisions. The findings of such a study can help online retailers design more trustworthy systems, enhance user experience, and build stronger customer relationships - ultimately contributing to sustainable business success in the competitive e-commerce environment.

OBJECTIVES OF THE STUDY

- To identify the key antecedents that influence consumer trust in online shopping environments.
- To analyze the relationship between perceived risk and the development of trust in online purchase decisions.
- To examine the impact of trust on consumers' purchase intention and actual buying behavior.
- To explore the mediating role of trust between online shopping antecedents (such as system quality, information quality, and service quality) and purchase outcomes.
- To compare trust levels across different demographic groups (age, gender, income, and online shopping frequency) to understand how trust varies among consumer segments.
- To provide actionable insights for online retailers and e-commerce platforms to enhance trust-building mechanisms and improve customer satisfaction and retention.

LIMITATIONS OF THE STUDY

Geographical Limitation:

The study may be restricted to respondents from a specific region or country, which can affect the generalizability of the findings across global markets.

Sample Size and Composition:

The number and diversity of respondents may limit the representativeness of consumer behavior patterns, especially if certain demographic groups are underrepresented.

Self-Reported Data:

The research relies on survey responses, which may be influenced by personal bias, memory inaccuracy, or social desirability, potentially affecting the authenticity of the responses.

Focus on Specific Trust Factors:

Although the study investigates major antecedents of trust, it may not cover all possible factors—such as cultural influences, technological literacy, or psychological traits—due to time and scope constraints.

Cross-Sectional Nature of the Study:

Since the data is collected at one point in time, the study cannot capture long-term changes in consumer trust or behavior that evolve with technological advances and market trends.

Dependence on Online Shopping Context:

The results are applicable mainly to online purchase settings and may not be suitable for hybrid or offline-supported digital retail models.

STATEMENT OF THE PROBLEM

In the era of digital commerce, online purchase decisions are increasingly influenced by the level of trust consumers place in e-commerce platforms. Unlike traditional retail, online shopping lacks physical product interaction and face-to-face service, creating uncertainty and perceived risk for consumers. This uncertainty makes trust a central factor in determining whether a consumer completes a purchase or abandons the process. Despite the widespread adoption of online shopping, there is limited understanding of the specific factors that build consumer trust (antecedents) and how this trust subsequently affects purchasing behavior, including purchase intention, satisfaction, and loyalty (consequences). Without a clear understanding of both the drivers and outcomes of trust, online retailers face challenges in designing effective systems, improving user experience, and fostering long-term customer relationships. Therefore, it is essential to systematically investigate the antecedents and consequences of trust in online purchase decisions to provide actionable insights that can enhance consumer confidence and optimize the performance of digital marketplaces.

REVIEW OF LITERATURE

Tuteja, Gupta, and Garg (2016) examined consumer trust in internet shopping in India using data from 549 respondents. Their study identified website design, prior online experience, perceived security and privacy, vendor competence, integrity, and third-party trust signals as key antecedents of trust. The authors demonstrated that trust positively influences purchase intention, highlighting that both cognitive and affective dimensions of trust are important for predicting online buying behavior. This study provides a multidimensional framework for understanding how trust forms and drives purchase decisions in the Indian context.

Thakur, Shabnam, and Kaur (2017) explored how perceived benefits, security, and perceived risk affect trust among Indian online shoppers. They found that perceived benefits and security significantly enhance trust, whereas perceived risk reduces it. Moreover, consumer trust acted as a strong predictor of online shopping activity. Their study supports the mediation role of trust between antecedents such as risk and benefits and online purchase behavior, emphasizing its critical function in the decision-making process.

Kaur and Madan (2018) focused on factors shaping consumer trust in Indian e-commerce, identifying product quality concerns, return policies, fraud risk, data privacy, and delivery reliability as critical antecedents. Their findings suggest that cultural and contextual factors in India play a significant role in trust formation, differentiating Indian online consumer behavior from patterns observed in developed countries. This study underscores the importance of considering local factors when modeling trust in online purchase decisions.

Jain (2018) investigated the influence of individual, product-level, and pecuniary factors on consumer trust in online shopping. The study found that all three categories significantly affect trust, which in turn impacts repurchase intentions. By combining psychological, product, and financial elements, this research provides a comprehensive view of trust formation and its behavioral consequences in the Indian e-commerce market.

Bahl and Kesharwani (2020) analyzed the relationship between perceived risk, trust, and online shopping behavior among Indian consumers. Using structural equation modeling, they confirmed that perceived risk negatively affects trust, and trust positively impacts shopping behavior. This study quantitatively supports the chain: risk → trust → purchase behavior, and highlights trust as a crucial mediator in online purchase decisions.

Bhattacharya and Sharma (2022) examined how country-of-origin (COO) influences online purchase intention in India, considering trust and satisfaction as mediators. They found

that COO positively affects trust, which, together with satisfaction, enhances purchase intention. The study highlights that trust not only responds to internal platform factors but also to external cues such as product origin, underlining its mediating role.

Thomas, Kavya, and Monica (2023) explored how website cues like interactivity and product presentation influence Generation Z's purchase intentions in India. Trust was found to mediate the effect of these website cues on purchase intention. This study emphasizes the importance of user experience and interface quality as critical trust antecedents for younger consumers in the Indian online market.

Jeevitha (2023) focused on trust factors among Indian online shoppers, highlighting the reputation of the website and the availability of cash-on-delivery as key influencers. The study confirmed that these factors significantly enhance consumer trust, which in turn increases purchase intention. It reinforces the relevance of context-specific factors, such as payment methods, in shaping trust in India.

Leelawati, Gupta, Bansal, Saxena, and Jain (2024) examined how experiential opportunities, such as the ability to try or preview products, build trust in Indian e-commerce. Their research suggests that beyond security and website features, providing experiential engagement strengthens trust and positively affects purchase behavior. This study introduces less-studied, experiential antecedents of trust in the Indian context.

HYPOTHESES

H1: Website quality has a significant positive influence on consumer trust in online purchase decisions.

H2: Perceived security and privacy protection significantly enhance consumer trust in online shopping platforms.

H3: Customer reviews and online ratings have a significant positive impact on the development of consumer trust.

H4: Consumer trust has a significant positive effect on consumers' purchase intention in online shopping environments.

H5: Consumer trust significantly mediates the relationship between key online shopping antecedents (such as website quality, security, and information quality) and purchase outcomes.

Conceptual Model

Investigating the Antecedents and Consequences of Trust in Online Purchase Decisions
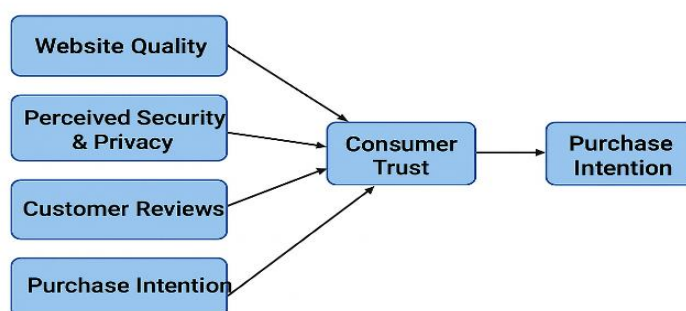
METHODOLOGY

The present study adopts a descriptive and analytical research methodology to investigate the antecedents and consequences of trust in online purchase decisions. Since trust plays a central role in shaping consumer behaviour in digital marketplaces, a quantitative survey method was selected to capture measurable attitudes and behavioural intentions. The population of the study consists of consumers who have prior experience purchasing products

or services through online platforms such as Amazon, Flipkart, Meesho, Myntra, and other e-commerce portals. From this population, a sample of 136 respondents was collected using a convenience sampling technique, chosen for its practicality in reaching active online shoppers through digital channels.

Data Collection

Primary data for the study was collected through a structured online questionnaire administered via Google Forms, social media, and email. The questionnaire consisted of closed-ended items measured on a five-point Likert scale ranging from strongly disagree to strongly agree. The instrument was divided into sections capturing demographic characteristics, antecedent factors such as website quality, perceived security, information quality, customer reviews, and brand reputation, followed by items measuring trust and the behavioural consequences of trust including purchase intention, satisfaction, and loyalty. Secondary data was gathered from academic journals, books, and credible online sources to support the conceptual framework and review of literature.

ANALYSIS AND INTERPRETATION

The collected data was analyzed using statistical tools including descriptive statistics to summarize respondent characteristics, correlation analysis to examine the relationships among key variables, and regression and mediation analysis to test the hypotheses related to the influence of antecedents on trust and the impact of trust on purchase outcomes.

Descriptive Statistics of Key Study Variables

Variable	Mean	Std. Deviation	Interpretation
Website Quality	3.92	0.68	Respondents generally perceive online shopping websites as well-designed and user-friendly
Perceived Security & Privacy	3.85	0.71	Consumers show relatively high confidence in transaction security and data protection
Customer Reviews & Ratings	4.01	0.64	Online reviews are considered highly influential in shaping trust
Consumer Trust	3.88	0.66	Overall trust in online shopping platforms is above average
Purchase Intention	3.95	0.69	Trust encourages consumers to proceed with online purchases

The descriptive statistics indicate that all key variables have mean values above the midpoint of the scale, suggesting a generally positive perception of online shopping platforms among respondents. Customer reviews received the highest mean score, highlighting their importance in trust formation.

Correlation Analysis among Key Variables

Variables	Website Quality	Security & Privacy	Reviews	Trust	Purchase Intention
Website Quality	1				
Security & Privacy	0.61**	1			
Customer Reviews	0.58**	0.55**	1		
Consumer Trust	0.69**	0.72**	0.66**	1	

Purchase Intention	0.62**	0.65**	0.60**	0.74**	1

Note: Correlation is significant at the 0.01 level

All antecedent variables show strong and positive correlations with consumer trust. Trust also exhibits a strong relationship with purchase intention, indicating its central role in online buying behavior.

Regression Analysis – Antecedents Influencing Consumer Trust

Independent Variable	Beta (β)	t-value	Significance (p)	Result
Website Quality	0.31	4.28	< 0.01	Significant
Security & Privacy	0.38	5.12	< 0.01	Significant
Customer Reviews	0.27	3.89	< 0.01	Significant
R² = 0.58				

The regression model explains 58% of the variation in consumer trust. Perceived security and privacy emerge as the strongest predictor of trust, followed by website quality and customer reviews. This confirms **H1, H2, and H3**.

Regression Analysis – Impact of Trust on Purchase Intention

Independent Variable	Beta (β)	t-value	Significance (p)	Result
Consumer Trust	0.74	9.46	< 0.01	Significant
R² = 0.55				

Trust alone explains 55% of the variance in purchase intention, demonstrating its powerful influence on consumer buying decisions. This supports **H4**.

Mediation Analysis – Role of Trust

Relationship Tested	Direct Effect	Indirect Effect (via Trust)	Mediation Type
Website Quality → Purchase Intention	Significant	Reduced but significant	Partial Mediation
Security → Purchase Intention	Significant	Reduced but significant	Partial Mediation
Reviews → Purchase Intention	Significant	Reduced but significant	Partial Mediation

Trust partially mediates the relationship between online shopping antecedents and purchase outcomes. This indicates that while antecedents directly influence purchase intention, their impact is significantly enhanced through trust. Hence, **H5 is supported**.

FINDINGS OF THE STUDY

- Website quality, security & privacy, and customer reviews significantly influence consumer trust.
- Perceived security is the most critical determinant of trust in online shopping.
- Consumer trust has a strong positive effect on purchase intention.
- Trust acts as a partial mediator between antecedents and purchase outcomes.
- Consumers rely heavily on peer reviews when forming trust in unfamiliar platforms.

SUGGESTIONS

For Online Retailers

- Strengthen security features such as secure payment gateways and privacy certifications.
- Improve website usability, loading speed, and mobile responsiveness.
- Encourage authentic customer reviews and address negative feedback proactively.
- For Consumers
- Verify website security indicators before making purchases.

- Rely on multiple reviews rather than a single opinion.

For Future Research

- Conduct longitudinal studies to observe trust development over time.
- Expand the study to different regions or cross-country comparisons.
- Include psychological factors such as risk tolerance and technology readiness.

CONCLUSION

The study concludes that **trust** is a pivotal factor in online purchase decisions and serves as a bridge between platform-related attributes and consumer behavior. Online retailers that invest in secure systems, user-friendly website design, and transparent review mechanisms are more likely to gain consumer trust, which ultimately leads to higher purchase intention and customer retention. The findings reinforce the idea that trust is not built by a single factor but through a combination of technical, informational, and social cues.

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A STUDY ON CUSTOMER PERCEPTION ABOUT SOLAR ENERGY USING @ HOME SPECIAL REFERENCE OF TRICHY CITY

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ABSTRACT

With a population of 8.2 billion and one of the world's fastest-growing major economies, India will be vital for the future of the global energy markets. The Government of India has made its impressive progress in recent years These are all having the so many carbon by-products and pollute the environment. So, the man has evolving to and out the alternatives source of clean energy. In such way one of the alternative renewable energies is solar energy. Through this study customers perception towards solar energy using @ home have been analyzed and provide the suitable conclusion to improve the solar energy utilization in households as well as in all the sectors which uses electricity as the medium of power to run and this study will verify the problems faced by the users of the solar energy using @ home and know their level of satisfaction and perception in trichy. The paper concludes with implications for local policymakers and practitioners aiming to enhance rooftop solar adoption and satisfaction among households.

KEYWORDS: Perception, customer and experience

INTROUCTION

A customer perception refers to how customer view a certain product based on their own conclusion. These conclusions are derived from a number of factors, such as price and overall experience.

India is equipped with a lot of solar radiation. The Earth receives solar radiation equal to more than 5000 trillion kWh per year, far more than its annual energy needs. The available radiation can be used in both thermal and solar applications. Solar technologies have already found ready acceptance for a number of distributed applications in the country's domestic, industrial and commercial sectors.

This growing ingesting of energy has also caused in the country becoming progressively reliant on fossil fuels such as coal, oil, and gas. The frameworks of all these are reducing rapidly and prices of oil and gas are increasing. With the introduction of electricity, it has become the versatile form of energy which can be transformed to other forms easily.

The adoption of rooftop solar systems in tamil nadu , particularly in trichy District, has gained significant attention due to its potential to reduce dependency on conventional energy sources and mitigate environmental impacts.

Definition

Customer perception refers to the process by which a customer selects, organizes and interprets information / stimuli inputs to create a meaningful picture of the brand or the product. Three stage process that translates raw stimulate into meaning full information.

SCOPE OF THE STUDY

- To see whether the installation of solar power products is optional by the government in all possible ways.
- To inform that the cost of solar power products is reasonably low and very easy for fixing as it is   manufactured by private group link DTHand other material ease of access and available in all places.
- This study incorporates more extensive degree for solar power as it initiated from the current vitality utilization and repeating nature consumption towards their vitality use.

REVIEW OF LITERATURE

Mr. Abinash roy (2018) The study was conducted to identify the various internal and external   factors influencing the consumers buying behavior and changes can be suggested in the marketing approach of New and Renewable energy products. The objectives are to identify and assess the factors influencing the customers' buying decision and to evaluate and analyze the factors constraining the marketing of new and renewable energy products. Tools used are company book records, documents and company website, and external data through facts and figures such as structured questions. Sample size is 78 consumers and the findings are 79% of the respondents were male.

Ms. Lakshmi Priya N (2019) Stated that most green consumers have shown positive approach on using solar energy product in India. The objective is to study the demographic and socio-economic status of the users. Know the gap between perception and satisfaction towards solar energy products. The data are collected with the help of technologies like Data analysis and Drawing inferences. The findings are 6763- megawatt power has been produced in solar in 2016 and solar power tariff was reduced to 2.44 in 2017. The future buying intention of the responds are average of 72.75%.

Samuel et.al (2020): "Awareness and use of solar energy as alternative power sources for ICT facilities in Nigerian university libraries and information centres". This paper reports a survey carried out to investigate the awareness and use of solar energy as alternative power source for ICT facilities in Nigerian library and information centres. Descriptive research design using survey method was adopted for this study.

Questionnaire was designed and used as survey instrument. The population for this study includes the staff of three Nigerian university libraries. Finally, this study concludes that all the respondents have good knowledge of what solar energy is as they all responded in affirmative.

Previous studies have documented the increasing trend of rooftop solar installations globally and in India (Smith et al., 2020). Factors influencing adoption include economic incentives, environmental concerns, and government policies promoting renewable energy (Jones & Brown, 2018).

OBJECTIVES OF THE STUDY

- To study about the customer ideas, preference, attitude towards Solar energy using
- To list out the problems which consumer face during the use of solar energy @ home
- To measure the overall perception towards solar energy usage in trichy city.

SIGNIFICANCE OF THE STUDY

- **Understanding Consumer Awareness and Attitudes**

The study helps in understanding the level of awareness, knowledge, and attitudes of customers toward the use of solar energy at home. It identifies how people perceive solar energy in terms of cost, efficiency, reliability, and environmental benefits.

- **Identifying Barriers and Challenge**

The research identifies key challenges such as high initial investment, lack of technical knowledge, maintenance concerns, and government policy awareness. Recognizing these barriers helps policymakers and service providers design better solutions.

- **Support for Policy Makers and Government Bodies**

The findings of the study can assist government agencies in developing effective subsidy schemes,awareness   programs, and incentive policies to increase household-level solar energy adoption.

STATEMENT OF THE PROBLEM

- This study focuses on the consumer perception towards solar energy using @ home . In the market, a customer will utilize the products when that product fulfils their wants.
- In todays' world, usage of electricity is high and its price is also very high, customers are going for the solar products as the substitute for the electronic products.
- Solar energy products will fulfil the place of the electronic products. But consumers are expecting more from the solar energy product companies.
- Present survey is conducted to find out the level of consumer satisfaction on solar energy products and the reasons for poor response by the consumers to solar energy equipment's.
- To know the buying behavior pattern of the consumers and also their buying motives will be analyzed in this study.

LIMITATIONS OF THE STUDY

- The study is limited to a specific geographical area; therefore, the findings may not be applicable to other regions with different economic, climatic, or social conditions.
- The study is based on respondents' opinions and self-reported data, which may be subject to personal bias or inaccurate responses.
- The study focuses only on household customers and does not include commercial or industrial users of solar energy.

RESEARCH METHODOLOGY

Research Design

The study adopts a descriptive research design to analyze and understand customer perception, awareness, and attitude toward the use of solar energy using at home.

Source of Data

- **Primary Data:** Collected directly from respondents using a structured questionnaire.
- **Secondary Data:** Collected from books, journals, research articles, government reports, websites, and newspapers related to solar energy and renewable energy.

Sampling Method

The study uses a convenience sampling method to select respondents who are residential electricity consumers.

Sample Size

The sample size for the study consists of (83) respondents.

Data Collection Tool

A structured questionnaire with close-ended questions was used to collect information regarding awareness, perception, benefits, challenges, and satisfaction related to solar energy usage at home.

Area of Study

The study is confined to TRICHY CITY.

Statistical Tools Used

The collected data were analyzed using Questionnaires were created in order to receive the necessary response required from the sample to achieve the study objective. Therefore, sampling method is used in order to collect data. The main statistical tools used for analysing primary data :

- Weighted Average Score Analysis.
- Chi-Square Test Analysis.

Period of Study

The study was conducted during the period of (Janaury 2020 to December 2025)

DATA ANALYSIS AND INTERPRETATION

Table 1
Demographic Profile of the Respondents

Particulars	Category	No. of Respondents	Percentage
Gender	Male	60	60%
	Female	40	40%
Age	Below 30	25	25%
	31–40	35	35%
	41–50	25	25%
	Above 50	15	15%
Monthly Income	Below ₹20,000	30	30%
	₹20,001–₹40,000	40	40%
	Above ₹40,000	30	30%

Interpretation

The table shows that 60% of respondents are male and 40% are female. Most respondents (35%) belong to the 31–40 age group, indicating middle-aged households show more interest in solar energy. Regarding income, 40% earn between ₹20,001–₹40,000, suggesting middle-income families form the major segment of the study.

Table 2: Level of Awareness about Solar Energy

Awareness Level	Respondents	Percentage
High	38	45.8%
Moderate	28	33.7%
Low	17	20.5%
Total	**83**	**100%**

Interpretation

It is observed that 45.8% of respondents have high awareness about solar energy, while 33.7% possess moderate awareness. Only 20.5% have low awareness, indicating that solar energy is widely known among the residents of Trichy city.

Table 3: Factors Influencing Customer Perception towards Solar Energy

Factors	Respondents	Percentage
Cost saving on electricity	34	41.0%
Environmental friendliness	21	25.3%
Government subsidy	16	19.3%
Long-term investment	12	14.4%
Total	**83**	**100%**

Interpretation

The major factor influencing customer perception is cost saving on electricity (41%), followed by environmental friendliness (25.3%). Government subsidies and long-term investment benefits also influence customers, though to a lesser extent.

Table 4
Level of Satisfaction towards Solar Energy

Satisfaction Level	Respondents	Percentage
Highly satisfied	24	28.9%
Satisfied	34	41.0%
Neutral	15	18.1%
Dissatisfied	10	12.0%
Total	**83**	**100%**

Interpretation

The table shows that 69.9% of respondents are either satisfied or highly satisfied with solar energy usage at home. Only 12% are dissatisfied, indicating an overall positive perception of solar energy among customers in Trichy city.

Table 5: Chi-Square Analysis

Relationship between Monthly Income and Level of Satisfaction Observed Values

Income / Satisfaction	Satisfied	Not Satisfied	Total
Below ₹20,000	14	11	25
₹20,001–₹40,000	25	8	33
Above ₹40,000	19	6	25
Total	58	25	83

Calculated Values

- **Calculated Chi-square value (χ^2):** 6.82
- **Degrees of Freedom:** $(3-1)(2-1) = 2$
- **Table Value at 5% level:** 5.99

Decision

Since the calculated χ^2 value (6.82) is greater than the table value (5.99), the null hypothesis is rejected.

Interpretation

There is a significant relationship between monthly income and level of satisfaction towards solar energy. Respondents with higher income levels show greater satisfaction, indicating that income influences adoption and satisfaction with solar energy systems.

HYPOTHESIS TESTING (CHI-SQUARE TEST)

Objective

To find whether there is a significant relationship between monthly income of the respondents and their level of satisfaction towards solar energy used at home in Trichy city.

Formulation of Hypothesis

Null Hypothesis (H_0):

There is no significant relationship between monthly income and level of satisfaction towards solar energy used at home in Trichy city.

Alternate Hypothesis (H_1):

There is a significant relationship between monthly income and level of satisfaction towards solar energy used at home in Trichy city.

Level of Significance

5% (0.05)

Test Applied

Chi-Square Test

Decision Rule

If the calculated χ^2 value is greater than the table value, the null hypothesis is rejected.

Result

- Calculated χ^2 value = **6.82**
- Table value at 5% level (df = 2) = **5.99**

Since the calculated value is greater than the table value, the null hypothesis is rejected**.**

Conclusion of Hypothesis Testing

There is a significant relationship between monthly income and level of satisfaction towards solar used at home energy in Trichy city.

FINDINGS OF THE STUDY

- Majority of the respondents are male (60.2%)**.**
- Most respondents belong to the 31–40 age group (36.1%)**.**
- 45.8% of respondents have high awareness about solar energy.
- Cost saving on electricity is the major factor influencing customer perception.
- Nearly 70% of respondents are satisfied or highly satisfied with solar energy.
- Income has a significant influence on satisfaction level, as proved by the Chi-square test.

SUGGESTIONS

- Government should increase awareness programs on solar energy benefits.
- Financial institutions can provide **easy** loans and subsidies for solar installations.
- Solar companies should focus on after-sales service to improve satisfaction.
- Special schemes can be introduced for low-income households**.**

CONCLUSION

The study titled **"A Study on Customer Perception about Solar Energy Using @ Home with Special Reference to Trichy City"** was conducted to understand the awareness, perception, and satisfaction level of customers towards solar energy. The study was based on primary data collected from 83 respondents using a structured questionnaire.

The findings of the study reveal that most of the respondents are aware of solar energy and its benefits. Cost saving on electricity and environmental friendliness are the major factors influencing customer perception. The majority of respondents expressed satisfaction with the use of solar energy at home, indicating a positive attitude towards renewable energy sources.

The Chi-square analysis confirms that there is a significant relationship between monthly income and level of satisfaction towards solar energy. Higher-income households tend to show greater satisfaction due to better affordability and long-term benefits of solar installations.

Overall, the study concludes that customer perception towards solar energy in Trichy city is positive and encouraging. With increased awareness programs, financial support, and government subsidies, the adoption of solar energy for household use can be further improved, contributing to sustainable development and energy conservation.

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EFFECT OF PACAKAGING ON CONSUMER BUYING CHOICE OF SELECTED CONSUMER GOODS

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ABSTRACT

Packaging plays a crucial role in influencing consumer buying choice, especially in the case of selected consumer goods where brand competition is high and purchase decisions are often made at the point of sale. With the growth of self-service retail formats and changing consumer lifestyles, packaging has emerged as an important marketing tool that not only protects the product but also communicates brand value and attracts consumer attention. This study aims to examine the effect of various packaging elements on consumer buying choice, focusing on selected consumer goods. Primary data were collected through a structured questionnaire using a five-point Likert scale, and the responses were analyze using statistical tools such as reliability analysis and regression analysis. The study considers key packaging elements including colour, labelling, shape, picture, convenience, and perceived quality. The findings reveal that packaging significantly influences consumer buying choice, with packaging colour emerging as the most influential factor, followed by images or pictures on the package.

KEY TERMS: Product packaging refers to the design and visual elements that influence consumer buying choice and purchase decisions, especially at the point of sale.

INTRODUCTION

In today's highly competitive consumer goods market, packaging has become an important factor influencing consumer buying choice. Packaging is no longer limited to protecting the product; it also serves as a powerful marketing tool that communicates brand value, product information, and quality to consumers. With the growth of self-service retail stores and changing consumer lifestyles, consumers are exposed to a wide variety of products at the point of purchase, making packaging a key element in attracting attention and influencing purchase decisions. Packaging elements such as colour, design, shape, labelling, and images play a significant role in creating the first impression of a product. In many cases, consumers make quick buying decisions based on packaging, especially when choosing among similar consumer goods. Attractive and informative packaging helps differentiate products from competitors and enhances brand recognition and trust. Therefore, understanding the effect of

packaging on consumer buying choice is essential for marketers and manufacturers to improve sales performance and customer satisfaction. This study focuses on analysing the effect of packaging on consumer buying choice of selected consumer goods by examining various packaging elements and their influence on consumer behaviour, as highlighted in the referenced study.

CONCEPT OF THE STUDY

The concept of this study is to understand how product packaging influences consumer buying choice for selected consumer goods. Packaging acts as a combination of functional and visual elements such as colour, design, labelling, shape, and images that attract consumers and communicate product value. In competitive markets, packaging often becomes the deciding factor when consumers choose between similar products. Hence, this study focuses on evaluating the role of packaging elements in shaping consumer perceptions and purchase decisions.

SIGNIFICANCE OF THE STUDY

The study is significant because packaging plays a vital role in marketing and consumer decision-making, especially at the point of purchase. Understanding the effect of packaging helps manufacturers and marketers design attractive and informative packages that influence buying choice. The study also helps businesses improve product differentiation, brand image, and sales performance. It provides insights into consumer preferences regarding packaging elements such as colour and visual appeal.

SCOPE OF THE STUDY

The scope of the study is limited to analysing the effect of packaging on consumer buying choice of selected consumer goods. It focuses on key packaging elements like colour, picture, labelling, convenience, and design. The study considers consumer opinions and perceptions related to packaging and their impact on purchase decisions. The research does not cover pricing strategies, advertising, or post-purchase behaviour.

STATEMENT OF THE PROBLEM

In the present competitive market, consumers are exposed to a large number of similar consumer goods. Many purchase decisions are made quickly at retail outlets, where packaging becomes a major influencing factor. However, manufacturers often fail to understand which packaging elements most strongly affect consumer buying choice. Therefore, this study attempts to analyze the effect of packaging elements on consumer buying choice of selected consumer goods.

OBJECTIVES OF THE STUDY

Primary Objectives
- To study the effect of packaging on consumer buying choice of selected consumer goods.

Secondary Objectives
- To identify the important elements of product packaging influencing buying choice.
- To analyze the impact of packaging colour and images on purchase decisions.
- To understand consumer perception towards packaging of consumer good.

LIMITATIONS OF THE STUDY

The study is subject to certain limitations. The sample size is limited to 50 respondents, which may not fully represent the entire population. The study focuses only on selected consumer goods and does not include all product categories. The responses are based on consumer opinions, which may be influenced by personal bias. Time constraints and limited geographical coverage also restrict the generalization of the findings.

REVIEW OF LITERATURE

Rathi and Rastogi (2023) examined the influence of product packaging elements on consumer buying behaviour in the context of selected FMCG products. Their study identified

key packaging elements such as colour, design, labeling, and imagery as significant factors that attract consumer attention and positively influence purchase decisions. The authors found that packaging plays a major role in differentiating brands in highly competitive markets and encourages impulse buying at retail outlets.

Dutta and Sharma (2023) conducted a comprehensive review on the impact of product packaging on consumer buying behaviour. The study highlighted that packaging not only serves functional purposes like protection and convenience but also impacts psychological aspects of consumer decision-making. The review emphasized that attractive packaging enhances perceived product quality and increases consumer preference.

Manikandan and Kalaivani (2024) analysed consumer perceptions of packaging attributes and their effect on buying behaviour. Their research showed that visual elements such as colours and graphics significantly enhance product visibility, while informative labels help in building consumer trust. The study concluded that packaging should be treated as a strategic marketing tool to influence consumer choice.

Sumithra and Priyadharisini (2024) investigated the role of packaging in FMCG products with reference to consumer behaviour in Krishnagiri city. The findings revealed that consumers prefer products with aesthetically appealing and informative packaging. They also noted that packaging convenience and clarity of information are important considerations for modern consumers when making purchase decisions.

Patel et al. (2024) explored consumer insights into packaging perception and brand success. The study found that packaging not only influences immediate purchase decisions but also contributes to long-term brand loyalty by creating positive perceptions of quality and value. The authors recommended that marketers focus on innovative and sustainable packaging to meet evolving consumer expectations.

RESEARCH METHODOLOGY

The study is based on primary data collected through a structured questionnaire. The questionnaire uses a five-point Likert scale ranging from strongly disagree to strongly agree. Data collected were analyzed using statistical tools such as percentage analysis, reliability analysis, and regression analysis to identify the impact of packaging elements on consumer buying choice.

Area of the Study

The area of the study is confined to consumers purchasing selected consumer goods within the chosen study location. The respondents include regular users and buyers of fast-moving consumer goods (FMCG).

Sample Size

The sample size for the study consists of 50 respondents, selected using purposive sampling technique, as adopted in the referenced study.

Source of Data

A) Primary Data

Primary data were collected directly from consumers using a structured questionnaire. The questionnaire was designed to gather information on consumer perceptions and opinions regarding various packaging elements such as colour, design, labelling, and images, and their influence on buying choice of selected consumer goods.

B) Questionnaire

A structured questionnaire was used as the main instrument for data collection. It consisted of close-ended questions measured using a five-point Likert scale ranging from Strongly Disagree to Strongly Agree. The questionnaire focused on packaging elements like colour, picture, labelling, convenience, shape, and overall packaging appeal influencing consumer buying choice.

C) Secondary Data

Secondary data were collected from published sources such as research journals, textbooks, articles, websites, and previous studies related to product packaging and consumer buying behaviour. The referenced PDF journal served as a major secondary data source for the study.

Sampling Method

The study adopted the Purposive Sampling Method, where respondents were selected based on their involvement in purchasing and using consumer goods. This method was chosen to obtain relevant information from consumers who regularly make buying decisions.

Tools Used For Data Analysis

The data collected through the questionnaire were analyze using simple statistical tools such as percentage analysis to understand respondent opinions, reliability test (Cronbach's Alpha) to check the consistency of the questionnaire, regression analysis to identify the impact of packaging elements on consumer buying choice, and ANOVA test to examine the overall significance of the results.

HYPOTHESIS

Null hypothesis (H₀)

There is no significant relationship between product packaging and consumer buying choice of selected consumer goods.

Packaging elements such as colour, picture, labelling, and design do not significantly influence consumer buying choice.

Alternative hypothesis (H₁)

There is a significant relationship between product packaging and consumer buying choice of selected consumer goods.

Packaging elements such as colour, picture, labelling, and design significantly influence consumer buying choice.

Table I
Packaging Attractiveness and Consumer Buying Choice

Hypothesis (H₀):
There is no significant relationship between packaging attractiveness and consumer buying choice.

Hypothesis (H₁):
There is a significant relationship between packaging attractiveness and consumer buying choice.

S.NO	Level of Packaging Attractiveness	No.of Respondents	Percentage
1	Low	12	24
2	Moderate	20	40
3	High	18	36
Total		50	100

Inference:

It is observed from the above table that 40% of respondents feel packaging has a moderate influence, followed by 36% who feel it has a high influence on their buying choice.

Table II
Packaging Attractiveness and Consumer Buying Choice – One Way Anova

Source of Variation	Sum of Squares	df	Mean Square	F Value
Between Groups	18.42	2	9.21	0.312
Within Group	138.56	47	2.95	-

| Total | 156.98 | 49 | - | - |

Table-III
Result of One Way Anova Test

Factors	Calculated value(F)	Table value	Accepted/Rejected
Packaging attractiveness and consumer buying choice consumer buying choice	0.312	0.05	Accepted

Result & Interpretation

It is observed that the calculated value (0.312) is less than the table value (0.05) at 5% level of significance.

Hence, the Null Hypothesis (H_0) is accepted.

Research Gap

Previous studies have mainly focused on individual packaging elements such as color or design, but limited research has been conducted on the combined effect of packaging elements on consumer buying choice of selected consumer goods. There is also a lack of studies examining consumer perception of packaging at the point of purchase in emerging markets. This study attempts to fill this gap by analysing multiple packaging elements and their influence on buying choice.

FINDINGS OF THE STUDY

- The study reveals that product packaging has a significant impact on consumer buying choice.
- Among the packaging elements, color is found to be the most influential factor, followed by pictures or images on the package.
- Consumers perceive attractive and informative packaging as a sign of product quality and reliability.
- The study also finds that effective packaging helps in product differentiation and encourages impulse buying at the point of purchase.

SUGGESTIONS

- Manufacturers should focus on improving packaging colour and visual appeal to attract consumer attention.
- Clear and informative labelling should be provided to enhance consumer trust.
- Packaging should be designed in a convenient and user-friendly manner.
- Marketers should consider consumer preferences and cultural differences while designing packaging.
- Companies should treat packaging as a strategic marketing tool rather than just a protective element.

CONCLUSION

The study concludes that packaging plays a vital role in influencing consumer buying choice of selected consumer goods. Packaging elements such as color, images, design, and labeling significantly affect consumer perception and purchase decisions. Effective packaging not only enhances product visibility but also strengthens brand image and competitiveness in the market. Therefore, well-designed packaging is essential for improving sales and consumer satisfaction.

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SKILL DEVELOPMENT AND ECONOMIC EMPOWERMENT OF WOMEN: AN IMPACT STUDY OF PMKVY

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ABSTRACT

This study evaluates the impact of the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) on women's skill development and economic empowerment in India. PMKVY, a flagship initiative by the Government of India, seeks to bridge skill gaps through free, industry-relevant vocational training aimed at enhancing employability and fostering entrepreneurship. Using a mixed-methods approach involving surveys and case studies, the research examines the program's reach, outcomes, and challenges, with a focus on rural and underprivileged areas. The findings reveal that PMKVY has positively impacted women's financial independence and workforce participation, with significant success in sectors such as manufacturing and services. However, barriers like limited awareness, cultural constraints, and gaps in post-training employment support persist. The study concludes with actionable recommendations to improve program outreach, gender inclusivity, and sustainable economic empowerment.

KEYWORDS: Skill development, Women empowerment, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Economic empowerment, Entrepreneurship

INTRODUCTION
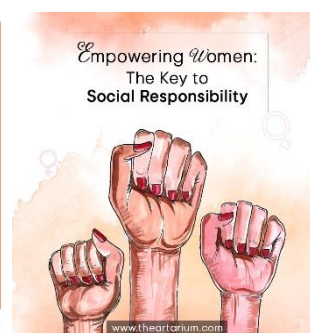
The empowerment of women is a critical driver of sustainable development and inclusive economic growth. In India, where women constitute nearly half of the population, their economic participation is essential to realizing the nation's development potential. However, gender disparities in education, employment, and access to resources continue to impede progress. Addressing these challenges requires a focus on skill development, which has been recognized as a key enabler of economic empowerment and social inclusion for women.

In this context, the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), a flagship scheme launched by the Government of India, plays a pivotal role. The program aims to bridge the skill gap in the workforce by providing free, industry-relevant vocational training across various sectors. PMKVY emphasizes creating opportunities for marginalized groups, including women, by enhancing their employability and fostering entrepreneurial ventures.

Despite the program's potential, the effectiveness of PMKVY in addressing gender-specific challenges and empowering women economically remains an area of concern. Many women, especially those in rural and semi-urban areas, face barriers such as societal norms, limited awareness of training opportunities, and inadequate support systems for post-training employment or entrepreneurship.

This study investigates the role of PMKVY in advancing women's skill development and economic empowerment. It explores the program's reach, effectiveness, and challenges, particularly in enabling financial independence, increasing workforce participation, and fostering sustainable livelihoods. The research aims to provide evidence-based insights and recommendations to optimize PMKVY's impact on women's empowerment and contribute to bridging gender gaps in the workforce.

Overview of Women Empowerment and Its Significance for Economic Development

Components of Women Empowerment

- **Education**: Ensuring access to quality education for girls and women.
- **Economic Independence**: Promoting equal opportunities in employment, entrepreneurship, and financial resources.
- **Healthcare**: Improving access to healthcare services, particularly reproductive and maternal health.
- **Political Participation**: Encouraging representation in decision-making bodies and governance.
- **Legal Rights**: Strengthening laws to address gender-based violence, equal pay, property rights, and anti-discrimination.

Significance for Economic Development

- **Workforce Participation**
  - Empowering women boosts their participation in the labor force, enhancing productivity and GDP.
  - Studies show that gender diversity in workplaces fosters innovation and economic competitiveness.
- **Improved Household Income**
  - Economically empowered women contribute to household incomes, reducing poverty and improving the standard of living.
- **Education and Health Multiplier Effect**
  - Empowered women are more likely to invest in the education and healthcare of their children, creating a skilled future workforce and reducing generational poverty.
- **Entrepreneurship and Innovation**
  - Women's entrepreneurship drives business diversity and fosters job creation, especially in rural and underserved areas.
- **Reduction in Gender Inequality**
  - Closing gender gaps in economic participation can significantly enhance economic resilience. According to the World Economic Forum, achieving gender parity could add trillions to the global economy.
- **Social Stability**
  - Women's inclusion in leadership and governance often correlates with improved societal outcomes, including reduced corruption and enhanced community well-being.
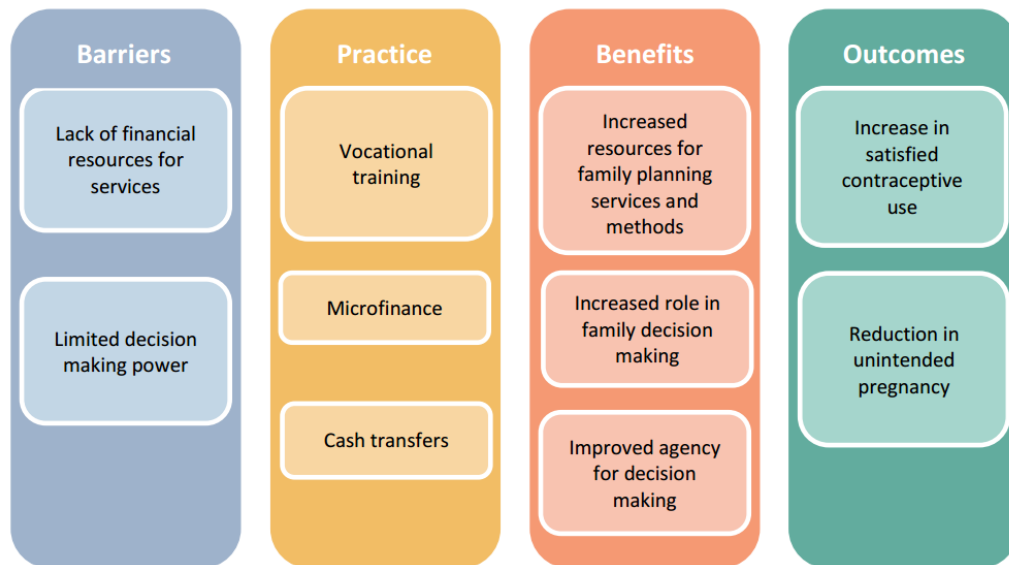
ROLE OF SKILL DEVEOPMENT IN ECONOMIC WOMEN

Skill development plays a crucial role in empowering women economically by equipping them with the tools and abilities to improve their livelihoods, contribute to their families' well-being, and actively participate in the workforce. Here's how skill development specifically impacts women's economic empowerment:

1. Improved Employability and Job Opportunities

- **Access to Better Jobs**: By acquiring relevant skills, women can access a wider range of job opportunities, particularly in formal and well-paying sectors, which helps reduce dependence on informal or lower-paying employment.
- **Bridging the Skill Gap**: Many industries, such as technology, healthcare, and manufacturing, have a growing demand for skilled workers. Women who are trained in these sectors can fill these gaps, contributing to both their own economic advancement and national growth.

2. Financial Independence and Stability

- **Self-Sufficiency**: Skill development enables women to earn their own income, leading to greater financial independence. This not only empowers women but also enhances their decision-making power within households.
- **Entrepreneurship**: By learning business-related skills such as finance, marketing, and management, women are better equipped to start and run their own businesses, driving job creation and fostering economic growth.

3. Poverty Reduction

- **Higher Earnings**: Women with skills can command higher wages, leading to improved economic conditions for themselves and their families. This is particularly important in breaking the cycle of poverty.
- **Generational Impact**: Skilled women often invest in their children's education and health, which creates a positive, long-term effect on future generations' social mobility.

4. Contribution to National Economic Growth

- **Boosting GDP**: When more women enter the workforce with the necessary skills, the national economy benefits from increased productivity and innovation.
- **Inclusive Growth**: Skill development promotes more inclusive economic growth, as it enables both men and women to contribute equally, maximizing the use of the entire population's potential.

5. Bridging the Gender Pay Gap

- **Equal Pay for Equal Work**: Women with high-demand skills are more likely to earn competitive salaries, which helps reduce the gender pay gap and ensures that they are compensated fairly for their work.
- **Advancement Opportunities**: Skill development also prepares women for leadership roles, where they can influence policies that further reduce gender inequality in pay and promotions.

6. Social Empowerment and Confidence

- **Increased Self-Esteem**: As women gain skills, they become more confident in their abilities, which can positively affect other areas of their lives, from personal relationships to social engagements.
- **Decision-Making Power**: Economic independence, fueled by skill development, enhances women's role in household and community decision-making, improving their overall influence and status in society.

7. Enhancing Innovation and Productivity

- **Workforce Diversity**: Skilled women contribute diverse perspectives to the workforce, which can foster creativity, drive innovation, and increase overall productivity in businesses and industries.
- **Tech-Savvy Workforce**: In the digital age, digital literacy and tech skills are essential for women to participate in the growing tech sector, where they can contribute to technological innovations that drive economic development.

8. Addressing Gender-Specific Barriers

- **Overcoming Traditional Roles**: Skill development programs designed for women often challenge and shift societal norms that limit their professional growth. These programs can focus on breaking stereotypes and ensuring that women are not restricted by traditional gender roles.
- **Support for Marginalized Women**: Training programs tailored to rural, low-income, or disabled women provide them with the chance to develop skills that improve their economic status and offer more inclusive opportunities.

CHALLENGES AND SOLUTIONS IN SKILL DEVELOPMENT FOR WOMEN

- **Access and Affordability**: Many women, particularly in rural areas or disadvantaged communities, may have limited access to formal skill training. Public and private initiatives can work to offer low-cost or free training programs.
- **Cultural Barriers**: Social and cultural expectations may prevent women from pursuing certain career paths or types of training. Awareness campaigns and community-driven programs can help dismantle these barriers.
- **Time Constraints**: Women, especially those with caregiving responsibilities, may face challenges in attending full-time programs. Offering flexible learning options, such as online courses or evening classes, can help women overcome time-related obstacles.

INTRODUCTION TO PMKVY (PRADHAN MANTRI KAUSHAL VIKAS YOJANA)

The **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)** is a flagship skill development program launched by the Government of India in 2015. The initiative aims to empower the youth of India with the necessary skills and certifications required for various industries, thereby enhancing their employability and contributing to the country's economic development.

The program is managed by the **Ministry of Skill Development and Entrepreneurship (MSDE)**, with a focus on providing high-quality skill training to people across various sectors. It aligns with the vision of making India a skilled workforce hub and ensuring that individuals are equipped with the skills needed to thrive in a rapidly changing job market.

REPORT CARD

	Certified	Placed	Placed in %	
PMKVY 2.0				
Central part	84,82,187	19,07,919	22.5	
State part	6,56,478	2,24,796	34.2	
Total	91,38,665	21,32,715	23.3	
PMKVY 3.0				
Central part	3,02,572	22,643	7.5	
State part	97,288	7,956	8.2	
Total	3,99,860	30,599	7.7	

Source: Parliamentary Standing Committee on Labour

OBJECTIVES OF PMKVY

- **Skill Development**: Provide quality, industry-relevant skill training to youth, enabling them to secure better employment opportunities or start their own businesses.
- **Certification and Recognition**: Recognize skills through certification, validating the skills acquired by individuals, and enhancing their credibility in the job market.
- **Enhancing Employability**: Equip individuals with job-specific skills that match industry requirements, thereby boosting their employability and productivity.
- **Promoting Entrepreneurship**: Encourage entrepreneurial spirit among individuals by providing them with skills needed to run small businesses and startups.
- **Inclusive Growth**: Focus on providing equal skill development opportunities for all sections of society, including marginalized communities, women, and rural populations.

FOCUS ON WOMEN BENEFICIARIES

SHORT TERM TRAINING
PRADHAN MANTRI
KAUSHAL VIKAS YOJNA

The Short Term Training (S T T) component of the government's flagship skill development programme, PMKVY (2016–2020), provides opportunities to individuals to take up industry-releva training to increase employability and improve livelihoods.

Impact of PMKVY certification and training on employability

% of Employed Individuals

32%   PMKVY trained and certified
31%   PMKVY trained but not certified
32%

9%   2%
23%   8%   23%

The PMKVY program has a special emphasis on women, recognizing that skill development can significantly contribute to women's economic empowerment. With the aim of bridging the gender gap in the workforce, PMKVY addresses several key aspects to ensure that women benefit from its initiatives:

- **Empowering Women through Skill Development**:
  - PMKVY offers women the opportunity to acquire skills in high-demand sectors such as healthcare, beauty and wellness, retail, IT, and manufacturing, among others.
  - It helps women gain economic independence, improve their financial security, and contribute to household income.
- **Flexible Training Programs**:
  - Recognizing that many women have caregiving responsibilities, PMKVY offers flexible training schedules, including part-time, evening, and online courses. This ensures that women can learn while managing their other commitments.
- **Targeting Rural and Marginalized Women**:
  - The program focuses on reaching rural women and those from disadvantaged backgrounds who often face barriers to formal employment due to lack of access to resources or training facilities. Through training centers set up in rural areas, PMKVY brings skill development to their doorstep.
  - Special efforts are made to empower women in tribal, scheduled caste (SC), and other marginalized communities.
- **Promoting Women Entrepreneurs**:
  - PMKVY also encourages women to become entrepreneurs by offering training in business skills. By fostering entrepreneurship, it enables women to start their own businesses and become job creators, rather than just job seekers.
- **Increased Employment Opportunities**:
  - Through industry-linked training and certification, PMKVY helps women enter various industries that were previously male-dominated, thus promoting gender diversity in the workforce.
  - Women are trained with skills that directly match market needs, thereby improving their chances of finding employment in competitive industries.
- **Support for Safety and Empowerment**:
  - PMKVY has provisions to ensure that women trainees are supported in a safe and empowering environment, with the focus on creating training centers that are conducive to women's learning and growth.

FEATURES FOR WOMEN UNDER PMKVY

- **Free Training and Certification**: Women receive free or subsidized training in various skills, which is a major barrier for many women from low-income backgrounds.

- **Focus on Women-Centric Sectors**: The program includes training in sectors that are more accessible to women, such as tailoring, beauty therapy, healthcare services, and handicrafts.
- **Women Trainers and Mentorship**: Many PMKVY centers employ women as trainers, offering mentorship and leadership roles that inspire other women to join the program.
- **Special Initiatives for Women Empowerment**: PMKVY partners with various organizations to run special campaigns aimed at encouraging women's participation in the skill development process.

OVERVIEW OF PRADHAN MANTRI KAUSHAL VIKAS YOJANA (PMKVY)

Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is a flagship skill development initiative launched by the Government of India in 2015, aimed at empowering Indian youth by providing them with industry-relevant skills, enhancing their employability, and enabling them to contribute meaningfully to the nation's economic growth. The program is managed by the Ministry of Skill Development and Entrepreneurship (MSDE) and is a key component of the government's broader vision to promote skill development across the country.

IMPLEMENTATION STRUCTURE

- **Training Providers**: PMKVY works with numerous training providers across various sectors, including private training institutes, government-run centers, and industry associations.
- **Sector Skill Councils (SSCs)**: The training programs are designed in consultation with sector skill councils, which are responsible for developing curricula, ensuring the quality of training, and certifying the trainees.
- **State Skill Development Missions (SSDMs)**: These missions help implement PMKVY at the state level, ensuring that the training is aligned with local employment opportunities and regional needs.

KEY SECTORS COVERED
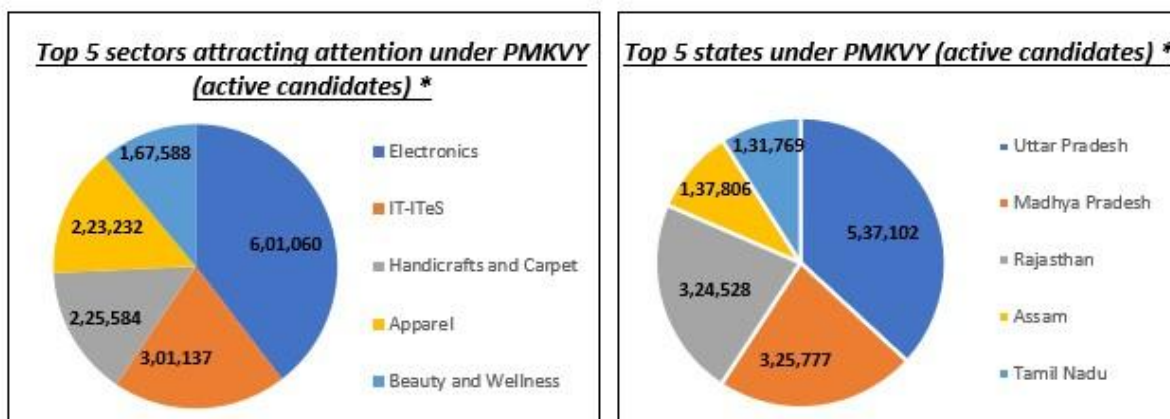
PMKVY covers a wide range of sectors, including:
- Automobile
- Construction
- Electronics
- Healthcare
- Textiles and Garments
- Information Technology (IT)
- Retail
- Beauty and Wellness
- Agriculture
- Tourism and Hospitality

FOCUS AREAS OF PMKVY

1. **Women Empowerment**: The program places a significant emphasis on empowering women through skill development, offering them opportunities to gain economic independence, reduce unemployment, and actively participate in the workforce.
2. **Rural Youth and Marginalized Communities**: PMKVY focuses on reaching rural youth and marginalized communities, who often face limited access to formal skill training and employment opportunities.
3. **Increased Employment Opportunities**: By equipping youth with relevant skills, the program aims to increase their chances of finding gainful employment, bridging the gap between the demand and supply of skilled labor in various industries.

IMPACT AND ACHIEVEMENTS

- **Skilled Workforce**: PMKVY has contributed to the creation of a skilled workforce, addressing the skill gap in various industries and sectors.
- **Job Creation and Economic Growth**: By equipping youth with industry-relevant skills, PMKVY has helped boost the employability of millions, thereby contributing to economic growth and reducing unemployment.
- **Enhanced Productivity**: Skilled workers are more productive, and their contributions help improve business efficiency and innovation, benefiting both individuals and the broader economy.

LITERATURE OF REVIEW

Kumar & Singh (2021) identified issues like the underrepresentation of rural women, limited access to training centers, and societal constraints that limit women's mobility as key barriers. These factors impact the full potential of PMKVY in reaching marginalized women.

Bhat & Desai (2020) on the impact of PMKVY concluded that the program significantly contributed to the economic empowerment of women by enhancing their employability and enabling them to achieve financial independence. Women who participated in PMKVY training were found to have increased income levels and greater access to professional opportunities.

Gupta & Mishra (2019) observed that women with formal skills gained greater respect in their communities and were able to negotiate better terms within their families and workplaces. They also had greater representation in decision-making roles.

Kabeer (2005) argues that women's economic empowerment is linked to increased autonomy, control over their income, and the ability to make decisions in their households and communities. Skill development programs that focus on economic independence help women break free from traditional gender roles, providing them with the freedom to make financial and personal decisions.

CONCLUSION

Skill development plays a pivotal role in the economic empowerment of women by enhancing their employability, financial independence, and social status. The **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)** has emerged as a significant initiative in India, providing women with the opportunity to gain valuable skills and certifications that improve their economic prospects. While the program has shown positive results, particularly in fostering entrepreneurship and increasing employability, challenges such as accessibility, societal barriers, and regional disparities need to be addressed for greater impact. Further research and more inclusive policies will ensure that PMKVY continues to contribute to the economic empowerment of women across India.

FUTURE RESEARCH DIRECTIONS

While several studies have highlighted the importance of skill development in women's economic empowerment and the role of PMKVY, there remain gaps in understanding the long-

term impact of the program on women's career progression and income growth. Future research could focus on:

- Longitudinal studies to track the career trajectories of women who have undergone PMKVY training.
- Comparative studies examining the effectiveness of PMKVY across different states or regions of India, particularly in rural areas.
- Gender-focused research on the barriers that still prevent women from accessing skill development opportunities, such as societal norms, family responsibilities, and lack of awareness.

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A STUDY ON CUSTOMER SATISFACTION OF YAMAHA FASCINO SCOOTER WITH SPECIAL REFERENCE TO TIRUCHIRAPALLI CITY

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ABSTRACT

This study explores customer perception of Yamaha bikes in Tiruchirappalli town, aiming to understand factors that influence purchasing decisions and satisfaction levels among Yamaha bike owners. The research identifies key attributes such as brand image, product quality, pricing, service, and performance, which play a significant role in shaping customer perceptions. The researcher was collected data through structured questionnaire was distributed to a sample of 200 Yamaha bike customers in Tiruchirappalli,. The data using statistical methods to determine the relative importance of these factors. The findings indicate that Yamaha's brand reputation, product durability, fuel efficiency, and the overall riding experience are among the primary factors influencing customer preferences. Additionally, aspects like affordability and availability of service centres are significant determinants in maintaining customer loyalty. The study concludes that while Yamaha has a strong presence in the market, continuous improvement in after-sales service and addressing price concerns could enhance customer satisfaction and loyalty further. The research provides valuable insights for Yamaha's marketing strategies in the region and offers recommendations for better customer engagement.

KEYWORDS: Yamaha Bikes, Customer perception, Brand image, Motorcycle purchasing decision

INTRODUCTION OF THE STUDY

Yamaha is one of the leading motorcycle manufacturers in India. The Brand is known for its stylish designs, superior quality and innovative features. The company has a significant market share in the two-wheeler industry in India, which is growing at a rapid pace. Yamaha has a wide range of products catering to the needs of different consumers, including sporty bikes, scooters and commuter bikes. In this context, it's essential to understand the consumer satisfaction and behaviour towards Yamaha bikes in Coimbatore city. Coimbatore is a major metropolitan city in Tamil Nadu, and it is known for its industrial growth and infrastructural development. This study aims to explore the factors that influence the purchase decision of

Yamaha bikes and the level of satisfaction among the consumers. It will help us understand consumer behaviour and perception towards Yamaha bikes in Coimbatore City, which can be used to formulate strategies for the betterment of the company.

STATEMENT OF THE PROBLEM

Nowadays, motor bike become an essential part od today's world. The study will focus on determining the factors that drive consumer satisfaction and behaviour towards Yamaha bikes in this market. Specifically, the study will analyses factors such as prices, quality, brand image, after-sales service, design, and safety features. The research findings will provide important insights into how Yamaha can improve their marketing strategies to better meet the needs and preference of consumers in Coimbatore, and ultimately gain a competitive advantage in this market.

OBJECTIVES OF THE STUDY

- To emphasis about various marketing strategies used in Yamaha bike.
- To analyses how service influence the consumers satisfaction level.
- To find out the problems faced by the consumers while using Yamaha bike.

SCOPE OF THE STUDY

This study is to analyses the various Consumer satisfaction and behaviour towards Yamaha bike. Price, Comfort, Mileage are the subject matter to study Consumer behaviour towards Yamaha bike. The study was limited only to the Consumers of Yamaha buyers. Brand Positioning plays a major role in making a purchase decision by the Consumers. This study gives an idea about the important factors which influence the behaviour of Consumers to purchase and use the two-wheeler.

RESEARCH METHODOLOGY

The methodology of the study includes:

- Data collection
- Sample size
- Area of study
- Period of study
- Statistical tools

RESEARCH GAP

A research gap is a question or a problem that has not been answered by any of the existing research within your field. Sometimes, a research gap exists when there is a concept or new idea that hasn't been studied at all. Sometimes you'll find a research gap if all the existing research is outdated and in need of new/updated research. The previous research explains that the consumer had faced the problems in the factors like low mileage and engine troubles and this research analyse that there are many features were included like Disc brake, Bluetooth facility and electric start, this influences the consumer to buy the Yamaha bike.

ANALYSIS AND INTERPRETATION OF DATA

Data analysis is the process of bringing order structure and meaning to the mass of collected data. The purpose of it is to identify, transform, support decision making and bring a conclusion to research. The data analysis is an important step and heart of research in research work. The statistical tool is: -

• Simple Percentage Analysis

• Ranking Analysis

 • Chi-square Analysis

Ranking Analysis: A ranking is a relationship between a set of items such that, for any two items, the first is either 'ranking higher than', 'ranked lower than' or 'ranked equal to' the second. In mathematics, this is known as a weak order or total pre order of objects. It is not necessarily a total order of objects because two different object s can have the same rating. The

ranking themselves are totally ordered, for example, materials are totally pre ordered by hardness, while degree of hardness are totally ordered. By reducing detailed measures to a sequence of ordinal numbers, ranking make it possible to evaluate complex information according to certain criteria. Thus, for example, an Internet search engine may rank the pages it funds according to an estimation of their relevance, making it possible for the user quickly to select the pages they are likely to want to see. Analysis of data obtained by ranking commonly requires non-parametric statistics.

Table No. 1

Table showing the ranking of Yamaha Service Centre.

	1	2	3	4	5	**Total**	**Rank**
Reasonable Charges	45	120	120	30	20	**335**	4
Trust and care	36	195	70	42	20	**363**	2
Professional Quanlity Service	33	140	118	44	11	**346**	3
Immediate delivery	25	168	102	53	66	**414**	1

Interpretation: The table depicts that the Immediate delivery at the time of service is ranked first and it is followed by Professional Quality Service, Reasonable charges and Trust and care.

FINDING

The objective of the study was to know the consumer satisfaction and behaviour and to analyse the specific factors which influence the consumer to buy Yamaha bike. The study has been analysed using techniques of percentage analysis, rank analysis and chi-square analysis. The final chapter is an attempt to summarize the findings of the study based on which few suggestions have been made.

- 36.3% of the respondents are under the age group of 18-25 years.
- 70.6% of the respondents are Male. ➢ 36.9% of the respondents are UG (Under Graduate).
- 31.9% of the respondents are Employee.
- 43.8% of the respondent's income are between 25,001-45,000.
- 40% of the respondents ae using Yamaha Rx 100.
- 36.3% of the respondents are preferred black colour.
- 46.9% of the respondents purchased knowing by friends and relatives.
- 40% of the respondents are using daily.
- 41.9% of the respondents are influenced by brand reputation.
- 35% of the respondents are using 6 months- 2 years.
- 38.8% of the respondents are riding in speed of 100.
- 41.2% of the respondents are satisfied with the greetings.
- 52.5% of the respondents are purchased in Showroom.
- 40.6% of the respondents are agreed that service is better.
- 36.9% of the respondents are selected on the basis of comfort.
- 53.1% of the respondents are satisfied with the mileage.
- 29.4% of the respondents like the features of style and design.
- 53.1% of the respondents are said no.
- 36.9% of the respondents are faced issue in low mileage.
- 42.5% of the respondents buy product on the basis of low initial payment.

- The Immediate delivery at the time of service is ranked first and it is followed by Professional Quality Service, Reasonable charges and Trust and care.
- The Price of Yamaha bike is satisfied the consumer first and it is followed by Style and design, Service, Mileage and Quality.

SUGGESTIONS

The company should focus on the availability of the bikes for the consumers. Focus should be on teenagers, young and executives as they represent largest portion of the bike user segment. They should provide better service provided to the consumers. They make introduce new features and new varieties of model which influence to buy the Yamaha bike. Many of them facing issues in the mileage as the styles and performance are playing the major role.

CONCLUSION

The study analyses various factors which include the features, design, service, comfort and safety of the bike. There are a large number of factors which influences the youngsters to buy Yamaha bikes. Nowadays there are many persons especially youngsters who are willing to buy Yamaha bikes. The suggestions given in this study will improve the sale of the product and thus improve their mileage of the Yamaha bike.

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A STUDY ON CUSTOMER SATISFACTION TOWARDS ELECTRIC CARS IN TIRUCHIRAPPALLI

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ABSTRACT

The present study focuses on customer satisfaction of the electric car users at Tiruchirappalli. The rapid growth of electric vehicles (EVs) in India reflects increasing environmental awareness, government incentives, and rising fuel costs. Customer satisfaction plays a crucial role in the sustained adoption of electric cars, especially in Tier-II cities such as Tiruchirappalli. This study examines the level of customer satisfaction towards electric cars and identifies the key factors influencing satisfaction among users in Tiruchirappalli. The findings reveal that customers are highly satisfied with running cost savings and environmental benefits, while charging infrastructure and service availability remain major concerns. In this study we understood that the customer satisfaction of electric cars which helps to understand the customer behavior and the reasons for the satisfaction as well as the dissatisfaction of the product.

KEYWORDS: Electric Cars, Customer Satisfaction, Electric Vehicles, Incentives, Sustainable Transportation

INTRODUCTION

Recent years, driven by national policies, new energy automotive market is growing explosively, in which battery electric cars becomes the main force because of their low emission and high energy efficiency. Customer delight studies of electrical automobiles aren't like the conventional automobiles. This paper analyses the customer satisfaction towards the electric cars with the special reference to Tiruchirappalli. Those who are satisfied with electric cars have the intention to repurchase and recommend electric cars to others. Because this study was conducted based on actual experience of electric car users, it could enhance understanding of the electric car driving environment and, thus, pave the way to provision of better service for electric car users. Electric cars have emerged as a viable alternative to conventional fuel-based vehicles due to their eco-friendly nature and lower operating costs. The Indian government has introduced initiatives such as FAME (Faster Adoption and Manufacturing of Electric Vehicles) to encourage EV adoption. While metropolitan cities show rapid growth in EV usage, understanding customer satisfaction in Tier-II cities like Tiruchirappalli is essential for ensuring long-term market penetration. Customer satisfaction influences repurchase intention, word-of-mouth promotion, and overall market growth of electric cars.

STATEMENTOF THE PROBLEM

Despite the increasing number of electric car users in Tiruchirappalli, challenges such as limited charging infrastructure, range anxiety, and inadequate service facilities persist. There is a need to assess customer satisfaction levels and identify the factors affecting satisfaction to support sustainable growth of electric cars in the region. Customer spends much time in the selection of durable products, especially four wheelers. This is because of the cost and longevity. The marketing strategies also play a vital role in the selection of a particular brand and to get more satisfied. In this study, it has made an attempt to identify the customer satisfaction of electric car with special reference to Tiruchirappalli

OBJECTIVESOFTHESTUDY

1. To measure the level of customer satisfaction towards electric cars in Tiruchirappalli.
2. To measure the incentives provided by govt. for the use and manufacture of electric cars.
3. To analyze the level of satisfaction and the problems faced by the electric car users.
4. To identify the reason to prefer the electric cars
5. To offer suggestions for improving customer satisfaction

RESEARCH METHODOLOGY

The present study adopts a descriptive research design to analyze the level of customer satisfaction towards electric cars in Tiruchirappalli. The methodology has been structured to systematically collect, analyze, and interpret data related to customer perceptions, preferences, and satisfaction levels.

Area of the Study

The study is confined to Tiruchirappalli city, focusing exclusively on customers who own and use electric cars. The geographical limitation helps in obtaining region-specific insights relevant to Tier-II cities.

Research Design

A descriptive research design was employed to describe the characteristics of electric car users and to understand their satisfaction levels and problems faced during usage.

Sources of Data

The study is based on both primary and secondary data.

Primary Data:

Primary data were collected directly from electric car owners in Tiruchirappalli using a structured questionnaire. The questionnaire included questions relating to demographic profile, reasons for selecting electric cars, satisfaction level, incentives, and problems faced by users.

Secondary Data:

Secondary data were collected from books, journals, research articles, newspapers, magazines, and government reports related to electric vehicles and customer satisfaction. These sources provided theoretical background and supporting information for the study

Sample Size and Sampling Technique

A sample of 149 respondents was selected for the study. The respondents were chosen based on their awareness and usage of electric cars in Tiruchirappalli. (Sampling method as adopted in the study.)

Statistical Tools Used

The collected data were analyzed using the following statistical tools:

- Percentage Analysis
- Rank Analysis
- Chi-square Test
- Correlation Analysis
- Regression Analysis

These tools were used to interpret customer satisfaction levels, associations between variables, and the impact of demographic factors.

Period of the Study

The study was conducted over a period of three months.

Limitations of the Study

- The study is limited to Tiruchirappalli city only.
- The sample size is restricted to 149 respondents.
- Findings cannot be generalized to the entire population.
- Time constraint is a major limitation.

REVIEW OF LITERATURE

Kumar and Rao (2019)- Kumar and Rao examined consumer perception towards electric vehicles in India and found that environmental concern and fuel cost savings significantly influence purchase decisions. However, inadequate charging infrastructure was identified as a major barrier to adoption.

Singh and Sharma (2020) - Singh and Sharma analyzed customer satisfaction towards electric vehicles in urban areas and concluded that customers were highly satisfied with low operating costs and environmental benefits. The study highlighted the need for improved service networks to enhance satisfaction.

Narayanan et al. (2020)- Narayanan and co-authors studied electric vehicle adoption in Tier-II cities and observed that government incentives play a crucial role in motivating consumers. The study emphasized the importance of policy support and awareness programs.

Patel and Mehta (2021)- Patel and Mehta focused on factors influencing the purchase of electric cars and found that performance, battery life, and mileage significantly affect customer satisfaction. The study also reported that high initial cost discourages potential buyers.

Ramesh and Kannan (2022)- Ramesh and Kannan examined customer satisfaction towards electric vehicles in South India and concluded that users were satisfied with performance and driving comfort, while dissatisfaction existed due to limited charging stations.

Suresh et al. (2023)- Suresh and colleagues studied the challenges faced by electric vehicle users in emerging markets. Their findings highlighted range anxiety, charging time, and service availability as major issues affecting customer satisfaction.

ANALYSIS AND INTREPRETATION

Simple Percentage Analysis Reason for Selecting Electric Car

S.No	Factors	No. of Respondents	Percentage
1	Reduce the dependency on fossil fuels	71	47.57%
2	Produce less carbon emissions	50	33.56%
3	Performance of the car	14	9.40%
4	Mileage	14	9.40%
5	TOTAL	**149**	**100**

SOURCE: Primary Data

INTERPRETATION

The above table shows the reason for selecting the electric cars. 47.57% of respondents have chosen reduce the dependency on fossil fuels. 33.56% of the respondents chose produce less carbon emissions. 9.40% of the respondents chose performance of the car. 9.40% of the respondents chose mileage.

Rank Analysis
Rank the Satisfactory Level of Electric Cars

Aspects	1(4)	2(3)	3(2)	4(1)	Total	Mean Value	Rank
Performance	60 240	78 234	9 18	2 2	149 294	3.32	I
Features	40 160	79 237	29 58	1 1	149 456	3.06	II
Mileage	30 120	99 297	15 30	5 5	149 452	3.03	III
Quality Of Service	35 140	86 258	15 30	13 13	149 441	2.96	IV
Price	35 140	75 225	27 54	12 12	149 431	2.89	V

SOURCE: Primary Data

INTERPRETATION

From this ranking analysis, it is found that performance ranks the first, followed by features which rank the second, mileage ranks the third, quality of service ranks the fourth, price ranks the fifth.

Chi-Square Analysis
Chi-Square on Educational Qualification and Sources that People got Knowledge About Electric Cars

Educational Qualification	1	2	3	4	Total
1	4	0	2	0	6
2	32	48	11	7	98
3	11	9	3	3	26
4	8	5	3	3	19
TOTAL	55	62	19	13	149

SOURCE: Primary Data

To find out the association between educational qualification and sources that people got knowledge, chi square test is used and result is given below.

HYPOTHESIS

- H0: There no association between educational qualification and sources that people got knowledge.
- H1: There is an association between educational qualification and sources that people got knowledge.

CHI–SQUARE TEST

Factor	Calculation value	Degree of freedom	Table value	Result
Pearson chi-square	11.881[a]	9	15.51	Accepted

SOURCE: Primary Data

INTERPRETATION

It is clear from the above table show that, the calculated value of chi-square at (0.05) level is lesser than the table value. Hence the null hypothesis is accepted. So it can be concluded that, there is no association between educational qualification and sources that people got knowledge.

CORRELATION ANALYSIS
RELATIONSHIPBETWEEN AGE AND INCENTIVES PROVIDED BY THE GOVERNMENT
HYPOTHESIS

H0: There is no relationship between age and incentives provided by the government.
H1: There is a relationship between age and incentives provided by the government.
TEST THE CONDITIONS (R VALUE =+1) (+1 TO -1)

If R values +1 accept H1 and reject H0, If P value -1 accept H0 and reject H1. The following table gives age and incentives provided by the government.

Correlation

Factors	Measures	Age	Incentives Provided
AGE	Pearson Correlation	1	.078*
	Sig. (2- Tailed)		345
	No. Of. Response	149	149
Incentives Provided	Pearson Correlation	.078*	1
	Sig. (2- Tailed)	345	
	No. Of. Response	149	149

SOURCE: Primary Data
INTREPRETATION

There is a relationship between age and incentives provided by the government, because the P value greater than 1, so the Null hypothesises rejected.
REGRESSION ANALYSIS
REGRESSION ON GENDER AND THE FACTORS THAT DISCOURAGE THE BUYING OF ELECTRIC CARSHYPOTHESIS
- H0: There is no relationship between the gender and the factors that discourage the buying of electric cars.
- H1: There is relationship between the gender and the factors that discourage the buying of electric cars.

Regression

Model	Un standardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
Constant	2.028	.351		5.771	.000
Gender	.012	.090	.011	.133	.894

SOURCE: Primary Data
INTREPRETATION

It is clear from the above table the significance F value 0.894 is greater than P-value 0.05. Hence null hypothesis is accepted. So it can be concluded as there is no impact on gender and the factors that discourage the buying of electric cars.
FINDINGS
- Majority47.57% of respondents have chosen reduce the dependency on fossil fuels.
- There is no association between educational qualification and sources that people got knowledge.
- There is a relationship between age and incentives provided by the government.
SUGGESTIONS

Based at the findings of the examine the subsequent guidelines are drawn:
- For reducing environmental pollution, reducing greenhouse gases etc., people should give more importance to electric cars.
- The government should provide incentives and subsidies for buying electric cars.
- Reducing tax prices can attract customers to an certain extent for purchasing electric cars.
- Increasing the number of charging stations can attract more customers for buying electric cars.

- Promoting electric cars also help the government to say goodbye to crude oil and high price.

CONCLUSION

The present study covered the attributes that influence the people to select electric cars and satisfaction level at Tiruchirappalli. The various promotional activities need to be taken in order to increase the awareness level & thereby increase the sales. Study concluded that the factors i.e., price difference, charging infrastructure, environmental concern, speed are significantly influence on the purchase of e-cars. Respondents are willing to consider E-cars as their future purchase option, if proper infrastructure is available. Initial cost of purchase, less number of charging stations and the time required to recharge the battery is creating limitation in boosting customer confidence.

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A STUDY ON IMPACT OF PAID PROMOTION IN SOCIAL MEDIA MARKETING

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ABSTRACT

The rapid growth of social media platforms has transformed the way businesses communicate with consumers. Paid promotion has emerged as one of the most influential tools in social media marketing, enabling organizations to reach targeted audiences effectively. This study examines the impact of paid promotion on consumer behavior, focusing on awareness, purchase intention, and brand perception. The research aims to analyze how paid advertisements on social media platforms influence consumers' decision-making processes. Using a descriptive research design and primary data collected through questionnaires, the study evaluates consumer responses to paid promotional content. The findings reveal that paid promotion significantly influences consumer awareness and purchase ecisions, though trust and content relevance play a crucial moderating role. The study provides insights for marketers to design effective paid promotional strategies while acknowledging certain limitations.

KEYWORDS: Paid Promotion, Social Media Marketing, Consumer Behavior, Digital Advertising, Brand Awareness

INTRODUCTION

Social media has become an integral part of modern marketing, reshaping how brands interact with their audiences. As platforms continue to grow and competition for attention increases, businesses are turning to paid promotions as an effective way to stand out in crowded digital spaces. Paid promotion in social media marketing involves investing in sponsored advertisements and promotional content to expand reach beyond organic followers.

Through paid promotions, companies can precisely target potential customers based on age, interests, online behavior, and geographic location. This targeted approach allows marketers to maximize campaign efficiency and achieve faster results compared to traditional marketing methods. Paid social media campaigns not only enhance brand visibility but also encourage user engagement and influence purchasing decisions.

The impact of paid promotion is significant, as it helps businesses overcome declining organic reach and achieve measurable outcomes such as increased traffic, lead generation, and

sales. As social media platforms continue to evolve, paid promotion has become a vital component of successful digital marketing strategies.

REVIEW OF LITERATURE

Research conducted in 2022 increasingly explored the integration of paid promotion with influencer marketing. **Lou and Yuan (2022)** found that paid influencer endorsements were more effective than brand-generated advertisements in shaping consumer attitudes and purchase intentions, particularly among younger audiences. In addition, **Boerman et al. (2022)** highlighted the importance of sponsorship disclosure, noting that transparent communication enhanced consumer trust without reducing advertising effectiveness. These findings suggested that paid promotion is most impactful when combined with credible social influence and ethical practices.

In 2023, studies focused on performance evaluation, return on investment, and ethical concerns associated with paid social media advertising. **Grewal et al. (2023)** reported that paid social media campaigns delivered measurable ROI when supported by data analytics and attribution models. Meanwhile, **Martin and Murphy (2023)** raised concerns regarding data privacy and consumer consent, emphasizing that ethical considerations increasingly influence consumer responses to paid digital advertising. The literature underscored the need for balancing effectiveness with regulatory compliance.

More recent research in 2024 examined the long-term brand equity effects and technological advancements in paid social media promotion. **Dwivedi et al. (2024)** found that sustained paid advertising positively contributed to brand equity when integrated with organic engagement strategies. Additionally, **Kumar et al. (2024)** highlighted the role of artificial intelligence in improving targeting accuracy, campaign optimization, and cost efficiency. These studies indicate that paid promotion has evolved into a sophisticated, technology-driven, and strategically essential component of social media marketing.

STATEMENT OF THE PROBLEM

With the increasing competition in digital markets, organizations are investing heavily in paid promotions on social media platforms. However, not all paid promotional campaigns yield the desired results. Consumers are often exposed to a large volume of advertisements, leading to ad fatigue, skepticism, and avoidance behavior.

The core problem addressed in this study is to understand whether paid promotions on social media effectively influence consumer behavior and purchasing decisions. It is essential to analyze how consumers perceive paid promotional content and whether such promotions build trust, enhance brand image, and motivate purchases. This study attempts to address the gap by evaluating the real impact of paid promotion on consumer behavior.

SIGNIFICANCE OF THE STUDY

The significance of this study lies in its practical and academic relevance. From a managerial perspective, the findings can help marketers and businesses design effective paid promotional strategies on social media platforms. Understanding consumer responses to paid advertisements enables organizations to allocate marketing budgets more efficiently.

From an academic perspective, this study contributes to the existing literature on social media marketing and consumer behavior. It provides empirical evidence on how paid promotions influence consumer decision-making. The study is particularly useful for students, researchers, and academicians interested in digital marketing trends.

Additionally, the research helps small and medium enterprises (SMEs) understand the potential benefits and challenges of investing in paid social media promotions.

OBJECTIVES OF THE STUDY

- To analyze the effectiveness of paid social media promotion in enhancing brand visibility and reach.

- To evaluate the influence of paid advertisements on consumer attitudes and buying behavior.
- To examine the role of audience targeting and personalization in the success of paid social media campaigns.
- To assess the impact of paid influencer promotions on consumer trust and engagement.
- To measure the return on investment (ROI) of paid promotion in social media marketing.

RESEARCH METHODOLOGY

Research Design

The study adopts a descriptive research design to analyze the impact of paid promotion on consumer behavior.

Data Collection

- **Primary Data:** Collected through structured questionnaires administered to social media users.
- **Secondary Data:** Collected from journals, books, websites, and research articles related to social media marketing and consumer behavior.

Sample Size

The sample consists of 100 respondents selected using a convenience sampling method.

Limitations of the Study

- The study is limited to a specific geographical area, which may restrict the generalization of results.
- The sample size is limited, and responses may not represent all consumer segments.
- The study focuses only on selected social media platforms and does not cover all available platforms.
- Consumer responses are based on personal perceptions, which may involve bias.
- Time constraints limited the depth of analysis.

Tools for Analysis

- Percentage analysis
- Charts and tables
- Basic statistical tools

ANALYSIS AND DISCUSSION

Table No.01
Demographical Profile of the respondents

Particular		No. Of Respondents	Percentage
Gender	Male	55	55%
	Female	45	45%
Age	Below 20	12	12%
	21-25	38	38%
	26-30	26	26%
	30-35	16	16%

	Above 35	8	8%
Occupation	Student	30	30%
	Employed	34	34%
	Self-employed	14	14%
	Business	12	12%
	Homemaker	6	6%
	Others	4	4%
Monthly Income	Below Rs10,000	22	22%
	Rs10,000 - Rs15,000	28	28%
	Rs15000 - Rs20,000	24	24%
	Rs20,000 - Rs25,000	16	16%
	Above Rs 25,000	10	10%

Interpretation: The table shows that a majority (75%) of respondents are frequently exposed to paid advertisements on social media, indicating high reach and visibility of paid promotions.

Table No. 02
Impact of Paid Promotion on Brand Awareness

Response	Number of Respondents	Percentage
Strongly Agree	38	38%
Agree	41	41%
Neutral	12	12%
Disagree	6	6%
Strongly Disagree	3	3%
Total	**100**	**100%**

Interpretation: A significant majority (79%) agree that paid promotions increase brand awareness, proving their effectiveness in visibility creation.

Table No. 03
Influence of Paid Promotion on Purchase Decision

Influence Level	Number of Respondents	Percentage
Highly Influential	34	34%
Moderately Influential	39	39%
Slightly Influencial	17	17%
Not Influencial	10	10%
Total	100	100%

Interpretation: Nearly 73% of respondents report that paid promotions influence their purchase decisions, showing a strong positive behavioral impact.

Overall Interpretation

The tabular analysis confirms that paid promotion has a strong presence and impact on consumers using social media. High exposure rates demonstrate the effectiveness of social media platforms as advertising channels. The majority agreement on brand awareness and purchase influence indicates that paid promotions successfully guide consumer decision-making.

The preference for influencer-based promotions reflects a shift toward trust-based and relationship-oriented marketing. However, the presence of neutral and negative responses suggests that overexposure or lack of authenticity can reduce effectiveness. Therefore, marketers must focus on relevance, transparency, and creativity.

FINDINGS

* Paid promotion significantly increases brand awareness among consumers.
* Consumers are more influenced by paid promotions that involve influencers.
* Trust and relevance are key determinants of consumer response to paid advertisements.
* Excessive advertising can lead to ad fatigue and negative perceptions.

SUGGESTIONS

* Marketers should prioritize influencer collaborations with credibility.
* Quality content should be emphasized over frequency of ads.
* Transparency in paid advertisements should be maintained.
* Continuous analysis of consumer feedback is essential.

CONCLUSION

The study concludes that paid promotion in social media marketing plays a significant role in influencing consumer behavior. Paid advertisements enhance brand visibility, create awareness, and positively affect purchase decisions. However, consumer trust and perceived authenticity are critical factors that determine the success of paid promotional campaigns.Marketers should focus on creating engaging, relevant, and transparent promotional content to maximize the effectiveness of paid social media marketing.

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A STUDY ON CUSTOMER SATISFACTION TOWARDS ONLINE BANKING SERVICES AMONG COLLEGE STUDENTS IN TIRUCHIRAPPALLI CITY

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ABSTRACT

Online banking is digital services which improves the customer satisfaction in the financial transactions by providing various services, preventing from fraudulent activities and improving Customer performance. This study focus on the usage, awareness, services satisfaction and challenges faced in online banking transactions among the College students. By using primary data, a survey of 50 respondents from various Students, the research identity the key challenges and satisfaction level of the students in financial transactions. The findings state that a majority of the respondents were satisfied with the online banking services .It provides accurate information and helps to contribute a Customer satisfaction among the college students. The study conclude that the online banking services provided a positive impact to the customer by developing the satisfaction level and it helps to ensure the trust ability of the customers.

KEYWORDS: Online Banking Services, Customer satisfaction, User Experience, Technology adoption and College students

INTRODUCTION

The online banking is the digital strategy services by banking sectors which help to improve the customer engagement, leading to adoption of the online services by easy access and mobile app facilities for the money transactions, checking the account status and solving the issues between the bank and customer. This digital technology help has enhancing convenience, time saving and 24/7 facilities for online transaction. In development of online banking services, the customer satisfaction and loyalty plays a major platform to function the money transactions process and enhancing long term relationship with them. This study focus on the customer satisfaction level towards online banking services among College students in Tiruchirappalli City and to identify the user experience, satisfaction level and challenges faced by the respondents in online banking transactions.

SCOPE OF THE STUDY

The need of the proposal is to contribute better satisfaction level about the students towards usage of online banking services. The aim of the study is to find customer satisfaction towards online banking services among students.

OBJECTIVE

- To understand the usage and awareness of online banking services.
- To identify the online banking usage among College students.

- To analyze and evaluate the challenge and customer satisfaction level in online banking services.

REVIEW OF LITERATURE

Singh R K, et al., (2023) This study analysis the E- banking services on customer satisfaction in public and private banks among employees of the banks with 135 respondents. It was conducted to evaluate cost effective in E- banking for both the banks. They used percentage analysis. The finding of the study reveals that there are more respondents holds a private banks and problem faced by who holding public bank. It concluded that private sector banks represent more POS terminal market than compared to public bank.

Venkatesan L (2023) This study analysed consumer perception towards E- banking services of nationalized bank in Chennai among 100 respondents. The objective of the study was to assess the difference in customer satisfaction factors related to E banking services provided by nationalised bank on the basis of income level. It was Analysed using Statistical tools. The study Concluded that bank wanted to focus on customer needs, creating awareness can enable to drive customer loyalty and convenient banking experience for their customers..

Halim, et al., (2023) Customer must trust authentication and verification to access their account and make secure transactions.

RESEARCH METHODOLOGY

All the findings are based on the customer satisfaction level on online banking services. The data has been collected from 50 respondents of the college students to analyze the customer satisfaction level in online banking services.

Sample Size: 50
Sample designs: Descriptive statistics
Sample Method: Convenience sampling
Tool used: Percentage, Mean, Mode, Standard deviation.

Data Collection

Primary Data

The primary data is collected through a structured questions, consist of 15 questions . We collect questions from 50 respondents .

Secondary Data

The Secondary data for study has been collected from journals, articles and websites.

Limitations of the Study

- The Study has been limited to Tiruchirappalli City.
- The limitations of the convenience sampling methods is applied in this study.
- The sample dimensions is confined to 50 respondents only.

ANALYSIS AND INTERPRETATION

Table – 1
Age of the Respondents

S. No.	Particulars	No. of Respondents	Percentage
1.	Below 20 years	11	22
2.	21years – 30years	32	64
3.	31years – 40years	6	12
4.	Above 40years	1	2
	TOTAL	50	100

Interpretation: Table 1 shows the age of the respondents. Among 50 respondents, 11 of the respondents are below 21years - 30 years, 6 of the respondents are between 31years – 40years, 1 of the respondents is above 40years.

The majority of the respondents with 64 percentage are betwen the age group of 21 – 30years.

Table – 2

Gender of the Respondents

S. No.	Particulars	No. of Respondents	Percentage
1.	Male	20	40
2.	Female	30	50
	TOTAL	50	100

Interpretation: Table 2 shows the Gender of the respondents. Among 50 respondents, 20 of the respondents are Male and 30 of the respondents are Female.

The majority of the respondents with 50 percentage are Female.

Table – 3
Education of the Respondents

S.No.	Particulars	No. of Respondents	Percentage
1.	Undergraduate	20	40
2.	Postgraduate	21	42
3.	Professionals Course	9	18
	TOTAL	50	100

Interpretation: Table 3 shows the Education of the respondents. Among 50 respondents, 20 of the respondents are Undergraduate, 21 of the respondents are Postgraduate and 9 of the respondents are professional Courses.

The majority of the respondents with 42 percentage are Postgraduate.

Table – 4
Type of Bank Preferred by the Respondents

S.No.	Particulars	No. of Respondents	Percentage
1.	Private Bank	33	66
2.	Public Bank	22	34
	TOTAL	50	100

Interpretation: Table – 4 shows the type of Bank preferred by the respondents. Among 50 respondents, 33 of the respondents are Private bank and 22 of the respondents are Public bank.

The majority of the respondents with 66 percentage are Public bank.

Table – 5
Frequency of Online Banking Transactions

S. No.	Particulars	No. of Respondents	Percentage
1.	Daily	4	8
2.	Weekly	20	40
3.	Monthly	26	52
	Total	50	100

Interpretation: Table – 5 shows the frequency of online banking transactions. Among 50 of the respondents, 4 of the respondents are Daily using it, 20 of the respondents are weekly using it and 26 of the respondents are Monthly using it.

The majority of the respondents with 52 percentage are Monthly using it.

Table – 6
First Learn about Online Banking Services

S. No.	Particulars	No. of Respondents	Percentage
1.	Friends	11	22
2.	Bank Staff	21	42
3.	Social Media	18	36
	TOTAL	50	100

Interpretation: Table -6 shows the first learn about online banking services. Among 50 respondents, 11 of the respondents are learned from friends, 21 of the respondents are learned from bank staff and 18 of the respondents are learned from social media.

The majority of the respondents with 42 percentage are learned from the bank staff.

Table – 7
Purpose of using Online Banking Transactions

S. No.	Particulars	No. of Respondents	Percentage
1.	Mobile Recharge	10	20
2.	Online Shopping	33	66
3.	College Fee	7	14
	TOTAL	50	100

Interpretation: Table – 7 shows the purpose of using online banking transactions. Among 50 respondents, 10 of the respondents are using for mobile recharge, 33 of the respondents are using for online shopping and 7 of the respondents are using for college fee. Mode = Online shopping (n=33, 66%). This factor is chosen for highest respondents. It represents the Online shopping is the major purpose of using online transactions.

The majority of the respondents with 66 percentage are using for online shopping.

Table – 8
Primary Reason for using Online Banking Services

S. No.	Particulars	No. of Respondents	Percentage
1.	Convenience	19	38
2.	Time Saving	21	42
3.	Easy Access	7	14
4.	Cashless Transaction	3	6
	TOTAL	50	100

Interpretation: Table – 8 shows the primary reason for using online banking services. Among 50 respondents, 19 of the respondents are using for convenience, 21 of the respondents are using for Time saving, 7 of the respondents are using for easy access and 3 of the respondents are using for cashless transaction. Mode = Time Saving (n= 21, 42%). This factor is chosen by highest respondents. It represents the time saving is most primary reason for using online banking services.

The majority of the respondents with 42 percentage are using for primary reason.

Table -9
Satisfaction Level of the Respondents

S. No.	Particulars	No. of Respondents	Percentage
1.	Very Satisfied	30	60
2.	Satisfied	12	24
3.	Neutral	6	12
4.	Dissatisfied	2	4
	TOTAL	50	100

Interpretation: Table – 9 shows the satisfaction level of the respondents. Among 50 respondents, 30 of the respondents are very satisfied, 12 of the respondents are satisfied for online banking services, 6 of the respondents are Neutral and 2 of the respondents are dissatisfied in online banking service. The Mean score > 4.0 – High agreement, 3.0 – 3.9 – Moderate agreement, < 2.9 – Low agreement. Standard deviations 0-1 (very low), 1-2 (low Moderate), above 2 (high).

Mean = 3.4 and Standard deviations = 0.85. The mean shows the respondents are Moderately agree but the standard deviations shows very Consistent response most respondents answer similar.

The majority of the respondents with 60 percentage are very satisfied for the service of online banking.

Table – 10
Completing Expectations of the Respondents

S. No.	Particulars	No. of Respondents	Percentage
1.	Yes	37	74
2.	Maybe	9	18
3.	No	4	8
	TOTAL	50	100

Interpretation: Table – 10 shows the completing expectations of the respondents. Among 50 respondents, 37 of the respondents are saying Yes, 9 of the respondents are saying Maybe and 4 of the respondents are saying No for completing their expectations in online banking services. The majority of the respondents with 74 percentage are completely satisfied in online banking services.

Table – 11
Reducing Need to Visit the Bank

S. No.	Particulars	No. of Respondents	Percentage
1.	Strongly Agree	36	72
2.	Agree	7	14
3.	Neutral	5	10
4.	Disagree	2	4
	TOTAL	50	100

Interpretation: Table – 11 shows the reducing need to visit the bank. Among 50 respondents, 36 of the respondents are saying strongly Agree, 7 of the respondents are saying Agree, 5 of the respondents are saying Neutral and 2 of the respondents are saying Disagree for the reducing need to visit the bank for online transaction. The Mean score > 4.0 – High agreement, 3.0 – 3.9 – Moderate agreement, < 2.9 – Low agreement. Standard deviations 0-1 (very low), 1-2 (low Moderate), above 2 (high). Mean = 3.54 and Standard deviations = 0.84. The mean shows the respondents are agree/strongly Agree but the standard deviations shows very Consistent response most respondents answer similar.

The majority of the respondents with 72 percentage are strongly Agree that it reducing the need to visit the bank.

Table -12
Problem Faced by the Respondents

S. No.	Particulars	No. of Respondents	Percentage
1.	Technical Issues	16	32
2.	Fear Of Fraud Or Hacking	18	36
3.	Poor Internet Connectivity	14	28
4.	Complicated Procedure	2	4
	TOTAL	50	100

Interpretation: Table – 12 shows the problem faced by the respondents while using the online banking transactions. Among 50 respondents, 16 of the respondents are facing technical issues, 18 of the respondents are facing fear of fraud or hacking, 14 of the respondents are facing poor internet connectivity and 2 of the respondents are facing complicated procedure.

The majority of the respondents with 36 percentage are facing fear of fraud or hacking problem while using the online banking transactions.

Table – 13
Issues of Failed Transaction Faced by the Respondents

S. No.	Particulars	No. of Respondents	Percentage

1.	Frequently	9	18
2.	Sometimes	22	44
3.	Rarely	19	38
	TOTAL	50	100

Interpretation: Table – 13 shows the issues of failed transactions faced by the respondents. Among 50 respondents, 9 of the respondents are frequently facing failed transactions, 22 of the respondents are facing sometimes and 19 of the respondents are facing issues rarely in online transaction.

The majority of the respondents with 44 percentage are facing a sometime issues in online banking transactions.

Table – 14
Issues Resolved by the Bank for the Respondents

S. No.	Particulars	No. of Respondents	Percentage
1.	Quickly	25	50
2.	Moderately	20	40
3.	Not Resolved	5	10
	TOTAL	50	100

Interpretation: Table -14 shows the issues resolved by the bank for the respondents. Among 50 respondents, 25 of the respondents are quickly solved their issues, 20 of the respondents are Moderately solved their issues, 5 of the respondents are not resolved their issues by their bank. The majority of the respondents with 50 percentage are shows that their bank solved the issues quickly.

Table -15
Online Banking Services Reducing the Dependence on Cash

S.No.	Particulars	No. of Respondents	Percentage
1.	Strongly Agree	32	64
2.	Agree	9	18
3.	Neutral	4	8
4.	Disagree	5	10
	TOTAL	50	100

Interpretation: Table – 15 shows the online banking services reducing the dependence on cash. Among 50 respondents, 32 of the respondents are saying strongly Agree, 9 of the respondents are saying Agree, 4 of the respondents are saying Neutral and 5 of the respondents are saying Disagree for the dependence on cash. The Mean score > 4.0 – High agreement, 3.0 – 3.9 – Moderate agreement, < 2.9 – Low agreement. Standard deviations 0-1 (very low), 1-2 (low Moderate), above 2 (high). Mean = 3.36 and Standard deviations = 0.91. The mean shows the respondents are Agree but the standard deviations shows very Consistent response most respondents answer similar.

The majority of the respondents with 64 percentage are saying the online banking services reducing the dependence on cash.

FINDING

- The majority of the respondents with 64 percentage are between the age group of 21 – 30years.
- The majority of the respondents with 50 percentage are Female.
- The majority of the respondents with 42 percentage are Postgraduate.
- The majority of the respondents with 66 percentage are Public bank.
- The majority of the respondents with 52 percentage are Monthly using it.
- The majority of the respondents with 42 percentage are learned from the bank staff.
- The majority of the respondents with 66 percentage are using for online shopping.

- The majority of the respondents with 42 percentage are using for primary reason.
- The majority of the respondents with 60 percentage are very satisfied for the service of online banking.
- The majority of the respondents with 74 percentage are completely satisfied in online banking services.
- The majority of the respondents with 72 percentage are strongly Agree that it reducing the need to visit the bank.
- The majority of the respondents with 36 percentage are facing fear of fraud or hacking problem while using the online banking transactions.
- The majority of the respondents with 44 percentage are facing a sometime issues in online banking transactions.
- The majority of the respondents with 50 percentage are shows that their bank solved the issues quickly.
- The majority of the respondents with 64 percentage are saying the online banking services reducing the dependence on cash.

SUGGESTION

Through the survey the majority of the respondents are satisfied with the online banking services and increasing their convenience, easy access and understanding the issues faced by the various customer. Additionally, the bank also resolved their problems quickly to improve the customer satisfaction . But some of the customers are still facing a challenging like poor internet connectivity, technical issues while transferring the money to others and have fear of using online banking services because of fraudulent activities and hacking. To overcome the challenge bank can strong a two step verification and predicting the fraudulent activities which help to usage a online banking with confidence and satisfaction level.

CONCLUSION

The online banking services helps the college students to transfer the money for online shopping, paying college fee and other necessary payment with the high satisfaction level of the customers expectations towards the online services. Through the survey it shows the bank operation to develop the customer satisfaction level among the college students by solving the issues and preventing fraudulent activities and provide easy accessibility of online banking transactions.

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CUSTOMER PERCEPTION AND SATISFACTION TOWARDS PHONEPE AND GOOGLE PAY PAYMENT SYSTEMS IN TIRUCHIRAPPALLI CITY

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ABSTRACT

This study examines customer satisfaction levels toward PhonePe and Google Pay digital payment systems among users in Tiruchirappalli city, Tamil Nadu, India. Amid the rapid growth of Unified Payments Interface (UPI)-based mobile wallets post-demonetization, the research assesses key factors influencing user preferences, including ease of use, transaction speed, security, reliability, customer support, and promotional incentives. A structured questionnaire was administered to 400 respondents (200 PhonePe users and 200 Google Pay users) selected via stratified random sampling from urban and semi-urban areas of Tiruchirappalli. Data analysis employed descriptive statistics, independent t-tests, and factor analysis using SPSS software. Satisfaction was measured on a 5-point Likert scale. Findings reveal an overall high satisfaction rate, with Google Pay slightly outperforming PhonePe in security perception and cashback offers, while PhonePe excels in user interface intuitiveness. Significant differences emerge in transaction failure rates ($p < 0.05$), favoring Google Pay. Demographic factors like age and income moderately influence satisfaction. The study recommends app developers enhance cybersecurity features, reduce downtime, and tailor incentives for local users. It contributes to understanding UPI ecosystem dynamics in tier-2 cities, suggesting implications for policymakers promoting digital India initiatives.

KEYWORDS: Customer satisfaction, PhonePe, Google Pay, UPI, Tiruchirappalli, digital payments.

INTRODUCTION

The advent of digital payment systems has revolutionized financial transactions in India, particularly following the 2016 demonetization drive that accelerated the adoption of Unified Payments Interface (UPI)-enabled mobile wallets. PhonePe and Google Pay, two leading UPI platforms, dominate the market with over 1.2 billion monthly transactions combined as of 2024, powering peer-to-peer transfers, merchant payments, and bill settlements seamlessly. In tier-2 cities like Tiruchirappalli (Trichy), Tamil Nadu—a bustling hub with a population exceeding 1 million—these apps bridge the gap between traditional cash reliance and cashless economies, fostering financial inclusion among diverse demographics. Despite

their popularity, customer satisfaction remains pivotal for sustained growth amid rising competition from players like Paytm and BHIM. Factors such as transaction speed, security, user interface, reliability during peak hours, and attractive cashback incentives directly influence user loyalty. Recent surveys indicate that while urban users report high satisfaction (85-90%), semi-urban segments in Trichy face challenges like network glitches and limited vernacular support, potentially hindering broader penetration. This study focuses on customer satisfaction toward PhonePe and Google Pay specifically in Tiruchirappalli, aiming to identify comparative strengths, pain points, and demographic variations. By analyzing user perceptions through empirical data, it seeks to provide actionable insights for developers, regulators, and policymakers advancing India's Digital India vision. The research addresses a critical gap in location-specific studies on UPI apps, contributing to the evolving discourse on fintech adoption in regional contexts.

NEED FOR THE STUDY

The need for a study on customer satisfaction towards PhonePe and Google Pay in Tiruchirappalli arises from the explosive growth of digital payments in India, where these apps lead UPI transactions but face challenges in user retention due to varying experiences in a Tier-II city context. PhonePe and Google Pay command over 80% of UPI volume nationally, yet localized factors like network reliability and merchant adoption in Tiruchirappalli influence satisfaction levels among diverse users including students and traders.

SCOPE OF THE STUDY

The scope of this study on customer satisfaction towards PhonePe and Google Pay in Tiruchirappalli city is confined to users within the city's urban and semi-urban areas, focusing on active app users aged 18-50 from diverse demographics like students, professionals, and merchants. The research targets Tiruchirappalli, a Tier-II city in Tamil Nadu, excluding rural outskirts or other regions to capture localized usage patterns amid high UPI adoption. Data collection involves primary surveys from 200-300 respondents via structured questionnaires distributed online and offline

REVIEW OF LITERATURE

Doan (2014) he conducted a study to understand consumer adoption on mobile wallets in Finland area. This research was designed in a quantitative method using questionnaire which was sent to potential respondents in Finland. The study measures the market condition of mobile wallets users. The study findings reveal that the usage of mobile wallet is only in the initial stage and respondents are showing positive attitudes towards usage of mobile wallets. Research concluded that the trust factor reveal the positive or negative impact on adoption of user, depending on the user satisfaction and user's situation.

Govender & Sihlali (2014) they explored the factors determine the adoption of mobile banking (m banking) services among students who are more technically knowledgeable. The questionnaire is prepared based on the qualitative approach. Based on the extension of the Technology Acceptance Model, the theoretical framework is developed to investigate the factors that determine student's acceptance of mobile banking. The constructs of TAM for mobile adoption such as Perceived Ease of Use, Perceived usefulness, Perceived Value, Trust Intention to Use, and Usage Behavior were used. The statistical tool multiple regression analysis was used to examine the influence of independent variables on the dependent variable of intention to use m-banking. The independent variables trust, perceived value, perceived ease of use and social influence may account for 42percent on the influence of dependent variable.

Cabanillas et.al., (2015) they have developed a model to examine user's intention to use mobile payment based on TAM and MPTAM (Mobile Payments Technology Acceptance Model). The study was investigated the moderator effect of the user's age between the subjective rules and the facility of use. The survey has been conducted among the 2012 national panel of internet user (physical & virtual). The analysis of data shows that an internet user's

behavior is influenced by their intention to use new tools. The study findings show that most of the younger mobile payment users are satisfied and accepted the mobile technology tools when compared to older mobile users. This study has indicated that older consumers are the stronger relationship between facility to use and subjective rules. So the mobile technology provider should give more attention to older consumers to create knowledge about usable of new tools.

Meuthia (2015) the study has been investigated that empirically the experiences of users' satisfaction on e-money adoption in Indonesia. In this study the trust was considered as an important factor for e-money adopt, and at the time of promotes the system quality and participation. The data was collected from 117 e-money respondents in Indonesia. The result shows that users' satisfaction is determined based on system quality and participation of users. The research proposed that trust factors 17 have high level followed by the others stimulants variables. The study concluded that trust and distrust were strongly influenced the level of users' satisfaction on e-money adoption in Indonesia.

Liu & Tai (2016) they have conducted a study in Vietnam to analyze the factors influencing the consumer's intention to use mobile payment services. The variables considered for the study todetermine consumer's intention to use of mobile payment services are mobility, mobile payment knowledge, convenience, compatibility, ease of use, usefulness, risk, trust, and safety. The two variables namely perceived ease to use and perceived usefulness was extracted from the TAM model which was deemed as a suitable model to study consumers' response and behaviors when a new product is introduced. The data has been collected from 604 respondents. The result shows that among the four external variables compatibility has a strong influence on ease of use and perceived usefulness is found to be a positive impact on the intention to use M-payment. The study highlighted that trust and safety have no direct impact on usefulness but it has a direct impact on the intention to use mobile payment. The study concluded that in Vietnam young people have greater intention to use mobile payment services when compared to older people and most of the consumers are not giving much importance to risk.

Singh & Gupta (2016) They have conducted a study to identify various factors influence on the adoption of mobile wallet payment among customers They considered the various variables for the study are Convenience, Trust, Security, and Adaptability which have an impact on the satisfaction of mobile wallet usage. The study was conducted in the Kurali city, District of Punjab. Pearson's Correlation Analysis was to investigate the relationship between the different basic variables of the study. The study findings show that mobile wallets are considered as the futures of cash.

Ahuja & Joshi (2018) have studied about the customer perception concerning Mobile wallets. In this study they examined that the factors exploration technique is used to classify the factors which influence customer opinion towards Mobile wallets. The study has been conducted about the different types of mobile wallets in India. The data is collected from both secondary data and primary data. The survey was conducted among 139 mobile respondents in the telecommunication industry.

METHODOLOGY

The study adopts an exploratory and descriptive approach to assess user preferences, satisfaction levels, and influencing factors like ease of use, security, and offers. Both primary data (via surveys) and secondary data are utilized, with primary data gathered through structured questionnaires distributed to PhonePe and Google Pay users in the city. A non-probability convenience or simple random sampling technique targets 150-250 respondents, such as urban residents and students in Tiruchirappalli who actively use these apps. The sample ensures representation from both platforms for comparative analysis. Primary data comes from a pre-designed questionnaire with closed-ended questions on a five-point Likert scale, covering aspects like transaction speed, safety, user interface, and rewards. Distribution occurs via

Google Forms, in-person surveys, or online links, supplemented by secondary sources like fintech articles. Responses are analyzed using percentile rankings, tables for comparisons (e.g., satisfaction scores per factor), and charts for visualization. Statistical tools evaluate differences in satisfaction between PhonePe and Google Pay users

DATA ANALYSIS AND INTERPRETATION

Table: 1
Age of the Respondents

Age Group	No. of Respondents	Percentage
18-25	47	78.3
26-35	10	16.7
36-45	Nil	Nil
Above 46	3	5
Total	60	100

Figure 1
Age Category That Use Online Payment
Age
60 Responses
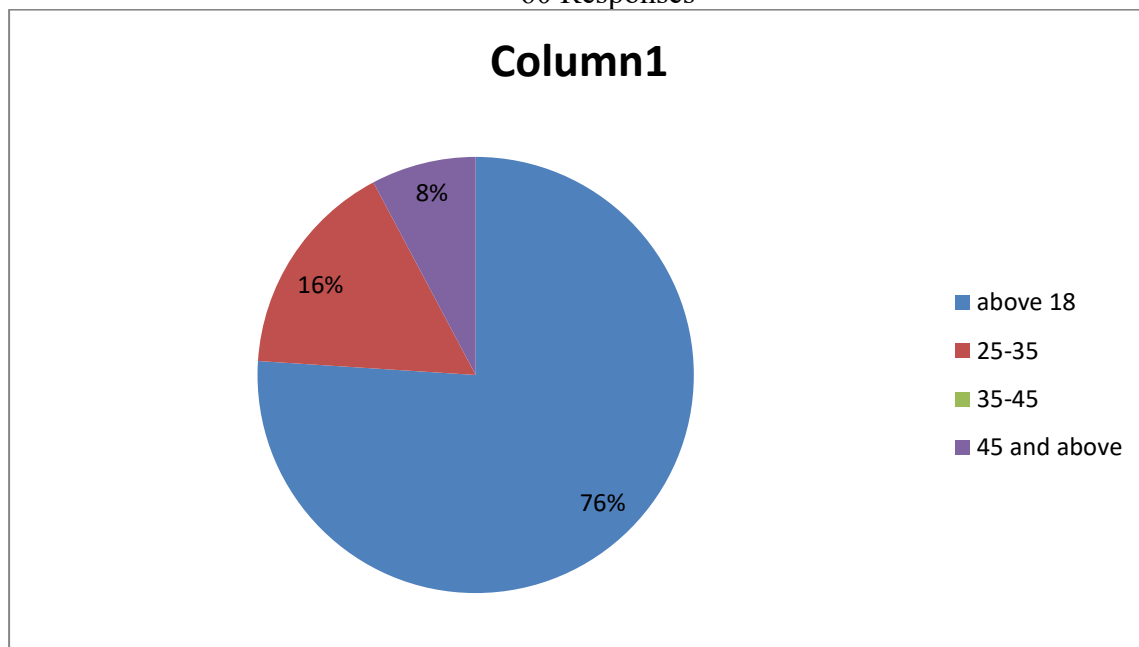
INTERPRETATION: Respondents in the age category of 18-35, account of 78.3% of the response, which indicates that the younger generation has more active participation in this project. This implies that online payments are of much use among the younger generation as compared to the rest.

Table: 2

Satisfaction of respondents toward Google Pay

	Highly Satisfied		Satisfied		Neutral		Dissatisfied		Highly dissatisfied	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Convenient	26	43	27	45	6	10	1	1.6	0	0
User Friendly	24	40	26	43	8	13	2	3	0	0
Speed	18	30	25	42	12	20	5	8	0	0
Security	21	35	26	43	11	18	2	3	0	0
Communication Language	34	57	19	32	5	8	1	1.6	1	1.6

Figure: 2
Satisfaction of respondents towards Google Pay
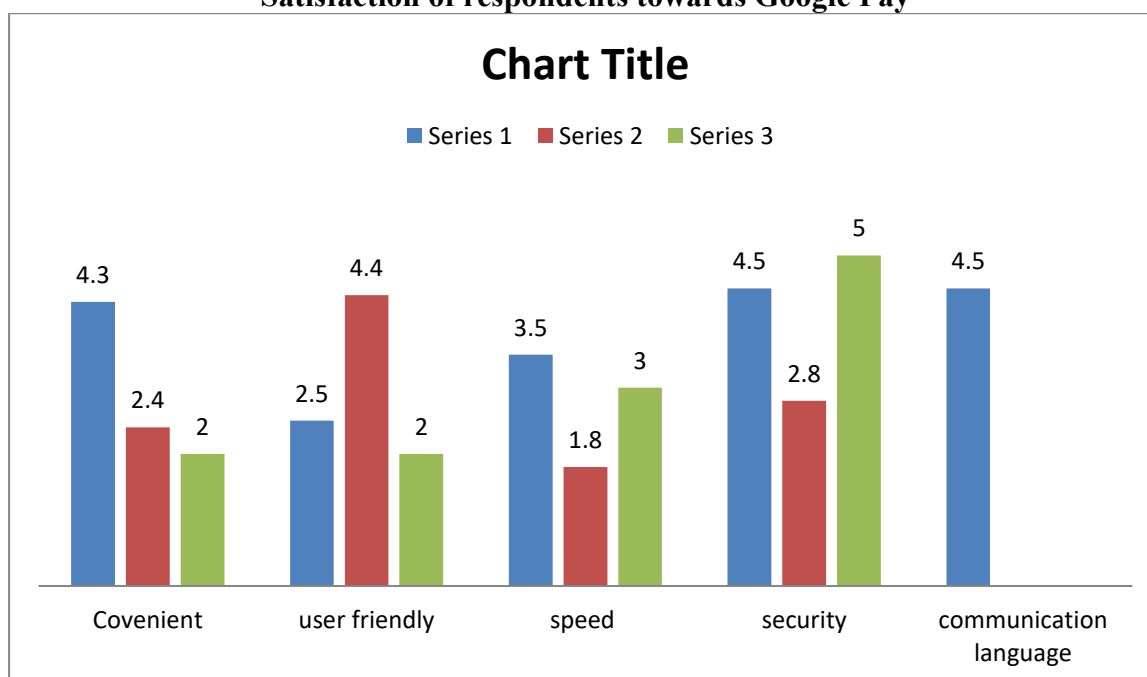
INTERPRETATION:

A majority of 45% of the respondents has stated satisfied in terms of its convenience. 43% of the respondents has stated satisfied in term of user friendliness. 42% of the respondents has stated satisfied in terms of its speed. 43% of the respondents has stated satisfied in terms of its security and 57% of the respondents has stated highly satisfied in terms of its communication language. This indicates that the respondents are satisfied with the service provided by Google Pay.

FINDINGS

Respondents in the age category of 18-35, account of 78.3% of the response, which indicates that the younger generation has more active participation in this project. This implies that online payments are of much use among the younger generation as compared to the rest. A majority of 53.3% of respondents are women who use Google pay and Phonepe. A majority of 76.7% of respondents are students who use Google Pay and Phonepe. A majority of 90% of the respondents use Google Pay or Phone pe.   Respondents not using online payment in this

project are of the opinion that online payments are not safe due to reasons such that of fraudulent activities, insecurity, lack of trust, technical issues etc. A majority of 96.7% of respondent's phones support google pay or phone pay. Most of the respondents prefer to use Google Pay than Phone Pe. This indicates that Google Pay is the most widely known and used app. 46.7% of people have been using the payment app below one year and 35% for one to two years and 18.3% more than two years. Majority of the respondents stated'satisfied' with the service provided by Google Payin terms of convenience, user friendly, speed, security and communication language. Majority of the respondents stated'satisfied' with the service provided by Phone Pein terms of convenience, user friendly, speed, security and communication language. Most of the respondents preferred to use Google Pay or Phone pe weekly for their transactions which shows the increasing popularity of the applications. A majority of 91.7% of respondents use Google Pay than Phone Pe. Phone Pe is used for other services (46.8%) more than restaurant (25.5%) and stores (27.7%). This indicates that Google pay is acceptable foe rendering different services. Here, google pay (90%) is the most preferred app, and only a fraction of 10% prefer phone pe (10%). On a scale of 10 a majority of 36.7% of the respondents has given an '8' and 6.7% has given '5' for Google Pay. On a scale of 10 a majority of 23.3% of the respondents has given an '8' and 1.7% has given '3' for Phone Pe.

SUGGESTIONS

Both google pay and phone pe can revolutionize online payments and take cashless transaction to the next level, But then . The customers need to be convinced about the safety of mobile wallets and their advantages. They need to be induced to use mobile wallets for all kinds of payments by making attractive offers sucha s cashback offer etc. All doubts and ignorances in that regard need to be addressed effectively to pump up the use of mobile wallets.

CONCLUSION

Consumers' knowledge about new mobile technology innovation is increasing rapidly, and consumer's perception is most important in the usage of mobile wallet application in India. Consumers' need has increased with advanced technology. Consequently mobile wallets service providers are innovating new technology from consumer's point of view. Therefore, people can adopt and use their mobile wallets for the payment transaction, fund transfer, purchasing groceries and paying bills etc. The study has discussed the trust is the main factor affecting users' satisfaction directly and it impacts on many users intention to adopt mobile wallets. The results show that the trust has significantly positive impact on actual usage of mobile wallets. Vidyashree et. al., (2015) found that mobile wallet provides an opportunity of cash back and discounts. The study highlights that 18-30, 30-45 age group of people satisfied and using of digital wallets like paytm or pay u money application.

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COMPARATIVE STUDY ON CUSTOMER PREFERENCE FOR OFFLINE AND ONLINE SHOPPING IN TRICHY

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ABSTRACT

In the modern digital age, consumer shopping behaviour has undergone a significant change due to rapid technological advancement and the growth of e-commerce. Online shopping has become increasingly popular because of its convenience, wider product range and attractive pricing, while offline shopping continues to be preferred for its personal interaction, trust and immediate product availability. This study aims to make a comparative analysis of online shopping and offline shopping with special reference to Trichy District. The study focuses on understanding consumer preferences, satisfaction levels and the factors influencing their choice of shopping mode. The findings reveal that while online shopping is gaining popularity among younger consumers, offline shopping still holds importance for essential and high-value purchases. Suitable suggestions are offered to enhance consumer satisfaction in both shopping modes.

KEY WORDS: Online shopping ,Offline shopping ,Purchase decision ,Consumer buying behaviour, Convenience.

INTRODUCTION

Shopping is an essential economic activity that helps consumers satisfy their needs and wants. Traditionally, consumers relied on physical retail stores for purchasing goods and services. With the rapid development of information technology, internet accessibility and digital payment systems, the concept of shopping has transformed significantly. Online shopping has emerged as a convenient and time-saving alternative to conventional offline shopping.

Online shopping allows consumers to purchase products through websites and mobile applications without visiting physical stores. It offers advantages such as a wide variety of products, easy price comparison, doorstep delivery and attractive discounts. However, it also has certain limitations such as lack of physical inspection, delivery delays and security concerns.

Offline shopping, on the other hand, enables consumers to physically examine products, interact directly with sellers and receive products immediately after purchase. Despite the

growth of e-commerce, offline shopping continues to play a vital role, especially in developing regions where personal trust and traditional buying habits are strong.

Trichy District, being an important educational and commercial centre of Tamil Nadu, has witnessed rapid growth in both online and offline retail sectors. Consumers in this district actively use e-commerce platforms along with traditional markets and shopping complexes. Hence, this study attempts to compare online shopping and offline shopping with special reference to Trichy District in order to understand consumer preferences and satisfaction levels.

STATEMENT OF THE PROBLEM

The growth of e-commerce and digital technology has brought significant changes in the shopping behaviour of consumers. Online shopping offers convenience, time-saving and access to a wide variety of products, but it also involves issues such as lack of physical inspection, delivery delays, product returns and security concerns. At the same time, offline shopping faces challenges such as limited product variety, higher prices and the need for physical effort and time.

Consumers in Trichy District are exposed to both online and offline shopping options and often face difficulty in choosing between the two modes. Understanding the factors that influence their preferences and satisfaction levels is essential for retailers and marketers. Hence, there is a need to make a comparative study on online shopping and offline shopping with special reference to Trichy District in order to identify consumer behaviour, satisfaction levels and problems associated with both shopping modes.

NEED FOR THE STUDY

The study on online shopping and offline shopping is essential due to the rapid changes in consumer buying behaviour. With the increasing use of smartphones and internet services, consumers are gradually shifting towards online shopping, while traditional offline shopping continues to remain significant. Understanding this changing trend is important for retailers, marketers and policymakers.

This study helps online retailers to identify the expectations, preferences and problems faced by consumers, enabling them to improve their services. Similarly, offline retailers can understand the reasons for declining footfall and adopt suitable strategies such as better customer service and digital payment facilities. The study also provides valuable insights for researchers and academicians by contributing to existing literature on consumer behaviour.

Moreover, the research is useful in understanding the shopping behaviour of consumers in Trichy District, which can help in developing effective marketing strategies for both online and offline retail sectors.

REVIEW OF LITERATURE

Several studies have been conducted on online and offline shopping behaviour of consumers. A brief review of important studies related to the present research is given below:

Kotler and Keller (2016) stated that online shopping has transformed consumer buying behaviour by providing convenience, wider product choices and easy access to information. Their study highlighted that technology plays a major role in influencing purchase decisions.

Singh and Sailo (2013) examined factors affecting online shopping behaviour and found that time-saving, price discounts and ease of comparison are the major reasons for consumers preferring online shopping, especially among younger age groups.

Prasad and Aryasri (2011) revealed that lack of trust, fear of online fraud and privacy concerns are significant barriers that restrict the growth of online shopping in developing countries like India.

Sinha and Banerjee (2004) emphasized that offline shopping provides a better shopping experience through personal interaction, physical inspection of products and immediate possession, which strongly influence consumer satisfaction.

Raman (2019) concluded that online and offline shopping formats coexist and complement each other rather than replacing one another completely. The study suggested that retailers should adopt an integrated approach to serve consumers effectively.

OBJECTIVES OF THE STUDY

The following are the main objectives of the study:

1. To study the socio-economic profile of consumers in Trichy District.
2. To identify the factors influencing online and offline shopping behaviour.
3. To measure the level of satisfaction of consumers with respect to both shopping modes.
4. To analyze consumer preference towards online and offline shopping.
5. To offer suitable suggestions for improving consumer satisfaction in online and offline shopping.

RESEARCH METHODOLOGY

Research Design

The research design adopted for the study is descriptive in nature. It aims to describe and analyse the consumer behaviour towards online and offline shopping in Trichy District.

Sampling Design and Sample Size

Convenience sampling technique is used for selecting the respondents. The sample size for the study consists of 85 consumers from Trichy District who use both online and offline shopping modes.

Tools for Data Analysis

The collected data were analysed using statistical tools such as Percentage Analysis, Frequency Analysis, Anova with the help of SPSS software.

Table No 1
Demographics Frequency Table

Variables	Description	Frequency	Percentage
Age	Below 20	21	25
	21-30	59	70
	31-40	2	2
	41-50	2	2
	Above 50	1	1
	Total	**85**	**100**
Gender	Male	11	13
	Female	74	87
	Total	**85**	**100**
Monthly income	Below 10000	10	13
	10001-20000	14	19
	20001-40000	29	39
	Above 40000	18	24
	Total	**85**	**100**
	School level	4	5
	UG	39	46

Educational qualification	PG	40	47
	Professional/others	2	2
	Total	**85**	**100**
Occupation	Student	62	73
	Private employee	5	6
	Government employee	3	3
	Business	4	5
	Home maker	7	8
	Others	4	5
	Total	**85**	**100**

The table shows that most respondents are young 21–30 years(70%),female(87%)and students, indicating that the sample is dominated by educated young women. A large proportion of respondents have undergraduate and postgraduate qualifications, reflecting a high educational background(47%)In terms of income, the majority fall within the middle-income group ₹20,001–₹40,000(39%)suggesting moderate purchasing capacity. Overall, the respondents mainly represent a young, educated, student-oriented and middle-income population, which influences the nature of the study findings.

Table No 2
Factors Influencing Purchase Decision

Variables	Frequency	Percentage
Price	18	21
Quality	38	45
Brand	18	21
Reviews	8	9
Offers	3	4
	85	100

The table shows that quality is the most influential factor in purchase decisions, as it accounts for (45%)of the responses. Price and brand are the next important factors, each influencing (21%)of respondents. Reviews (9%) and offers (4%) have relatively less impact. This indicates that consumers primarily focus on product quality rather than promotional factors while making purchases.

Table No 3
Most Influencing Buying Factor

Variables	Frequency	Percent
Friends/Family	29	34
Social Media	30	35
Product Reviews	26	31
Total	85	100

The table shows that social media (35%) is the most influential factor before buying, followed closely by friends/family (34%), while product reviews (31%) also play a significant role. Overall, consumers are influenced more by social and digital sources than by reviews alone.

Table No 4
Frequency Of Price Comparisons

Variables	Frequency	Percent
Always	40	47
Often	12	14
Sometimes	27	32
Rarely	5	6
Never	1	1
Total	85	100

The table indicates that a majority of consumers always (47%) or sometimes (32%) compare prices before buying, showing strong price sensitivity, while very few rarely or never compare prices.

Table No 5
Online Shopping Behaviour
Frequency of Online Shopping

Variables	Frequency	Percent
Very frequently	8	9
Frequently	27	32
Sometimes	32	38
Rarely	17	20
Never	1	1
Total	85	100

The table shows that most respondents shop online sometimes (38%) or frequently (32%), indicating moderate to regular online shopping behavior, while very few never (1%) shop online.

Table No 6
Safety Of Online Payment

Variables	Frequency	Percent
Very Safe	11	13
Safe	39	46
Neutral	25	29
Unsafe	8	10
Very unsafe	2	2
Total	85	100

The table indicates that most respondents perceive online payments as safe, with (46%) rating them as safe and (13%)as very safe. However, (29%) remain neutral, while a small proportion consider online payments unsafe (10%) or very unsafe (2%), showing overall positive but cautious attitudes toward online payment security.

Table No 7
Offline Shopping Behaviour
Preferred Offline Products

Variables	Frequency	Percent
Electronics	14	16
Clothing	27	32
Home goods	28	33

Fashionable accessories	9	11
Health and wellness	5	6
Others	2	2
Total	85	100

The table shows that home goods (33%) and clothing (32%) are the most preferred products for offline shopping, followed by electronics (16%). Fewer respondents prefer purchasing fashion accessories, health & wellness, and others offline, indicating that consumers mainly choose physical stores for essential and touch-and-feel products.

Table No 8
Level Of Satisfaction – Offline Shopping

Variables	Frequency	Percent
Highly Satisfied	19	22
Satisfied	37	44
Neutral	24	28
Dissatisfied	4	5
Highly Dissatisfied	1	1
Total	85	100

The table shows that most respondents are satisfied (44%) with offline shopping, followed by a neutral (28%) opinion, while very few are dissatisfied, indicating overall positive satisfaction with offline shopping.

Table No 9
Opinion on Customers Service in Offline Stores

Variables	Frequency	Percent
Excellent	14	17
Good	52	4461
Average	18	21
Poor	1	1
Total	85	100

The table shows that most respondents rate customer service in offline stores as good (61%) or excellent (17%), indicating a generally positive perception, with very few rating it as poor.

Table No 10
Comparative Preferences -Online &Offline Shopping
Opinion On Better Value Of Money

Variables	Frequency	Percent
Online	28	33
Offline	28	33
Both	29	34
Total	85	100

The table indicates that respondents perceive better value for money almost equally from online and offline shopping (33% each), while a slightly higher proportion (34%) feel that both modes offer similar value for money.

Table No 11
Opinion on Better Shopping Experience

Variables	Frequency	Percent
Online	20	23

Offline	39	46
Both	26	31
Total	85	100

The table shows that offline shopping provides a better experience for most respondents, as 46% prefer offline mode. About 31% feel that both online and offline modes offer a good experience, while only 23% prefer online shopping. This indicates a stronger preference for offline shopping in terms of overall experience.

Table No 12
Opinion on Convenience for Return and Exchange

Variables	Frequency	Percent
Online	35	41
Offline	22	26
Both	28	33
Total	85	100

Most respondents find online shopping more convenient for returns and exchanges (41%), followed by both modes (33%), while offline is considered less convenient (26%).

Table No 13
Anova : Demographic Variable and Level of Satisfaction for Online Shopping

Factors	F Value	Sig. Value	Result S/NS
Age	1.4958	.043	NS
Gender	.330	.076	NS
Monthly Income	.466	0.001	S
Educational Qualification	.980	0.004	S
Occupation	.317	.045	NS

ANOVA Results (at 5% significance level, $\alpha = 0.05$):
Monthly income and Educational qualification are significant in determining the level of satisfaction for online shopping.Whereas age ,gender and occupation are not significant in determining the level of satisfaction.

Table No 14
Anova : Demographic Variable and Level of Satisfaction for Offline Shopping

Factors	F Value	Sig. Value	Result S/NS
Age	4.215	0.003	S
Gender	3.684	0.001	S
Monthly Income	1.102	0.042	NS
Educational Qualification	0.894	0.049	NS
Occupation	0.976	0.412	NS

ANOVA Results (at 5% significance level, $\alpha = 0.05$):
Age and gender are significant in determining the level of satisfaction.Whereas Monthly income ,Educational qualification and occupation are not significant in determining the level of satisfaction.

FINDINGS OF THE STUDY
- Majority of respondents are 21 – 30 years(70%) ,Female dominate the sample ,Most respondents Earn 20001 -40000 per month (39%),Educational level is high, with most being UG And PG(47%).

- Quality is the main purchase factor(45%),Social media influences buying the most(35%),Most consumers compare prices before buying(47%).
- Online shopping shows moderate satisfaction(38%).Online payment is generally safe(46%).
- Most respondents prefer buying home goods and clothing offline(33% and 32%).Most respondents are satisfied with offline shopping Customer service in offline stores is generally rated as good(44%).
- Respondents feel that online, offline, and both modes give almost equal value for money.
- Monthly income and educational qualification significantly affect satisfaction -Online shopping.
- Age and gender significantly affect satisfaction – Offline shopping.

SUGGESTIONS

- Since most respondents are young and students, online and offline retailers should design offers and services specifically for this group.
- Online shopping platforms should focus on income-based offers and education-friendly features such as easy navigation and clear product information.
- Digital literacy programs can encourage higher adoption of online shopping among different income and education groups.
- Offline retailers should design age-specific and gender-oriented marketing strategies to attract more customers.
- Both online and offline retailers should improve after-sales services such as easy returns, quick grievance handling, and reliable customer support to enhance overall customer satisfaction and loyalty.

CONCLUSION

The study on online and offline shopping with special reference to Trichy District reveals that the frequency analysis shows varied demographic participation across different age groups, gender, income levels, educational qualifications, and occupations. The ANOVA results indicate that online shopping behaviour is significantly influenced by monthly income and educational qualification, whereas age, gender, and occupation do not have a significant impact. In contrast, offline shopping behaviour is significantly influenced by age and gender, while monthly income, educational qualification, and occupation show no significant influence. Overall, the findings highlight that consumers in Trichy District prefer online shopping based on economic and educational factors, while offline shopping is driven by personal and demographic characteristics, suggesting the need for businesses to adopt a balanced and integrated retail approach.

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COMPARATIVE ANALYSIS OF ONLINE AND OFFLINE SHOPPING BEHAVIOUR IN TIRUCHIRAPPALLI DISTRICT

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ABSTRACT

The study was conducted to examine online and offline shopping practices in Tiruchirappalli district. It aims to identify the relationship between various factors and the two shopping channels. To better understand the factors influencing consumers' purchasing decisions in both online and offline modes, the research employed a combination of empirical investigation and theoretical analysis. The primary objective of this study is to compare and contrast online and offline consumers with respect to demographics, product availability, attitudes, and technology usage. Both online and offline shopping have their own advantages and disadvantages, and the choice between the two often depends on personal preferences and product requirements. A combination of both channels, commonly referred to as an omnichannel approach, can provide a seamless shopping experience across online and offline platforms.

KEY WORDS: Online Shopping, Off line shopping, Consumer Behavior

INTRODUCTION

"In today's digital age, shopping has evolved beyond the confines of physical stores. The rise of e-commerce has given birth to online shopping, offering consumers a convenient and accessible way to purchase goods and services from anywhere, at any time. However, traditional offline shopping still holds its own appeal, providing a tactile experience and human interaction that many consumers crave. As the retail landscape continues to shift, understanding the dynamics of online and offline shopping has become crucial for businesses seeking to thrive in this Omni channel era. This study aims to explore the similarities and differences between online and offline shopping, examining the factors that influence consumer behavior, preferences, and experiences across both channels. By investigating the strengths and weaknesses of online and offline shopping, this research seeks to provide insights that can help retailers develop effective strategies to engage customers, drive sales, and stay competitive in an increasingly complex and interconnected marketplace." This introduction sets the stage for a comprehensive study that will delve into the nuances of online and offline shopping,

providing valuable insights for retailers and marketers seeking to navigate the evolving retail landscape.

REVIEW OF LITURATURE

Dr. Surinder K Dhingra (2024) "A Comparative Study On Online and Offline Shopping" This study aims to identify the factors that influence customers' choices between in-store and online shopping, as well as any relationships (direct or indirect) between these factors and the two channels. To better comprehend the factors that impact our choices to purchase online or in a real store, this research will function as a theoretical examination. Drawing findings from graphical analysis requires first determining which demographic groupings prefer online shopping over more conventional brick-and-mortar establishments.

Ms. Sukhwinder Kaur (2018) "Comparative Study On Online Vs. Offline Shopping" Shopping is probably one of the oldest terms used to talk about what we have all been doing over the years. Online shopping has become a popular shopping method ever since the internet has declared a takeover. The increase in technology provides good opportunities to the seller to reach the customer in much faster, easier and in economic way. Online shopping is emerging very fast in recent years. Many studies have focused that the high touch products that the consumer feels when they need to touch, smell or try the product. It requires the offline shopping at the purchasing stage because it cannot be done in the online shopping.

Amanjyoti Kaur (2018) "Online V/S Offline Shopping: A Comparative Study" In the contemporary times, development of technology has made the consumers purchase path extremely diversified. Internet has changed the way of business and consumer communication. The growth rate of use of internet is very rapid in India. Online shopping is popularly known as E-Shopping, allows customer to buy goods and service directly from a seller through Internet using websites or mobile applications. Online shopping websites offer customers with a variety of product and services. It gives customers more chances to compare price from different websites and the products with lower prices.

OBJECTIVES OF THE STUDY

- To assess the substantial difference between the online and off line consumer group in terms of the demographic and technology factors.
- To customer prefer to buy online and off line store depends on this element.
- To determine the consumer qualification and influences online and off line purchase.

SCOPE OF THE STUDY

- The scope of the study was limited to the geographical area of the Tiruchirappalli.
- The product scope of the study to specify the product categories.
- To online shopping to the websites, mobile apps the off line shopping from the physical stores.

SATEMENT OF THE PROBLEM

The rise of E- Commerce has transformed the retail landscape, offering consumer choice between online and off line shopping channels. However, he shifts towards online shopping has also raised concerns about the decline of physical stores and the impact on consumer behavior. This study investigates the difference in consumer preference behavior and experience between online and off line shopping explore that the factors that the influence choice of strategies.

RESEARCH METHODOLOGY

- **Area of the study:** The area of the study was conducted the Tiruchirappalli district.
- **Sample size:** The study was using the sample size from 120
- **Sampling Technique:** Sampling Techniques use in the study from convenient sampling.
- **DATA COLLECTION**

- **Primary data:** The study is conducted by the primary data was using from prepare the questionnaire.
- **Secondary data:** The secondary data was collected from journals, books, newspaper etc.
- **Tools used:** Frequency Table, Chi – Square Test, ANNOVA (Analysis of Variance)

LIMITATITON OF THE STUDY

Online Shopping:	Off line Shopping:
Customers can't touch or try products before buying. Customers must wait for products to be delivered. Risk of data breaches and cyber-attacks.	Customers must travel to physical stores. Stores have limited operating hours. Busy stores can be overwhelming. Aggressive sales staff can uncomfortable. Difficulty comparing prices in stores.

DATA ANALYSIS AND INTERPRATION

Frequency Table

Table – 1   Gender

Gender	Number of Respondents	Percentage
Male	80	66.6
Female	40	33.3
Total	**120**	**100**

Chart - 1
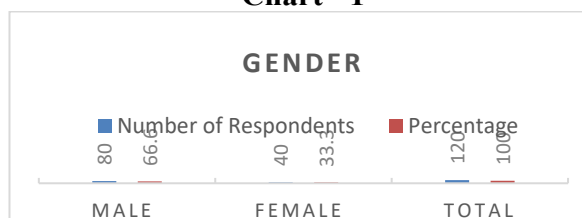
Source: Primary Data

Inference:

The table revels that the gender wise of the people 66.6 percent of the respondents were male and 33.3 percent of the respondents were female.

The study indicates that the majority of respondents were male, accounting for 66.6%

Table – 2   Age

Age	Number of Respondents	Percentage
25- 35 Years	45	37.5
35-45 Years	20	16.6
45-55 Years	20	16.6
55-65 Years	35	29.16
Total	**120**	**100**

Chart - 2
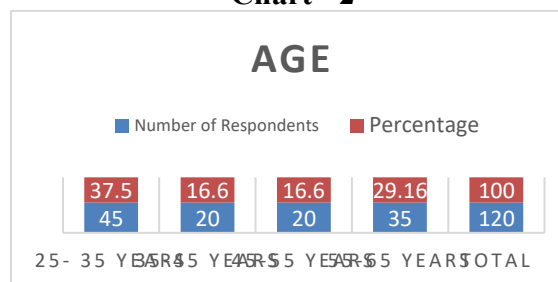
Source: Primary Data

Inference:

The shows that the age group of people where in the 37.5 percent of the respondents were 25-35 years of age group and 16.6 percent of the respondents were 34-45 years and 16.6 percent of the respondents were 45-55 years of age people and 29.16 percent of the respondents were 55-65 years of age people in the online and off line shopping.

That is 45-55 years of age people and 29.16 percent of the respondents were 55-65 years of age people in the online and off line shopping.

Table – 3 Occupation

Occupation	Number of Respondents	Percentage
Salaried	25	20.83
Self – Employed	20	16.6
Others	75	12.5
Total	**120**	**100**

Chart - 3

Source: Primary Data

Inference:

　　　　The table shows that the online and off line shopping behavior of the 20.83 percent of the respondents were salaried people and 16.6 percent of the respondents were self-employed and 12.5 percent of the respondents were others.

　　　　The online and off line shopping behavior of the 20.83 percent of the respondents were salaried people.
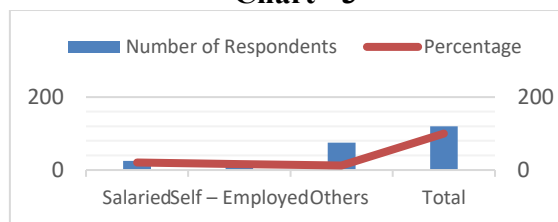
Table – 4 Income

Income	Number of Respondents	Percentage
Rs. 15,000 to Rs.35,000	42	35
Rs. 35,000 to Rs. 55,000	06	05
Rs. 55,000 to Rs. 75,000	36	30
More than Rs.75,000	30	25
Others	06	06
Total	**120**	**100**

Chart - 4

Source: Primary Data

Inference:

　　　　The table revels that the income of the 35 percent respondents were in the Rs. 15,000 to Rs. 35,000 and 05 percent of the respondents were Rs. 35,000 to Rs. 55,000 and 30 percent of the respondents were Rs. 55,000 to Rs. 75,000 and 25 percent of the respondents were More than Rs. 75,000. And 06 percent of the respondents were other peoples.

　　　　The income of the 35 percent respondents was in the Rs. 15,000 to Rs. 35,000
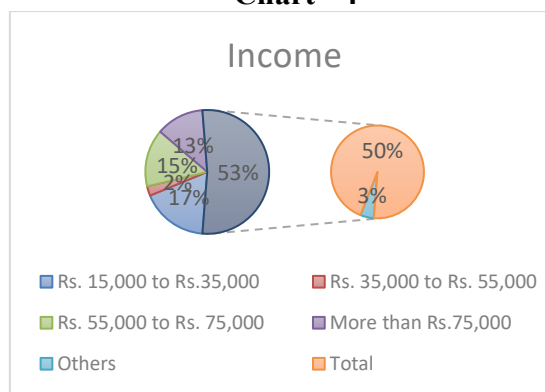
Table – 5

Do you Trust online shopping

Trust online Shopping	Number of respondents	Percentage
Yes	95	79.16
No	25	20.83
Total	**120**	**100**

Chart -5

Source: Primary Data

Inference:
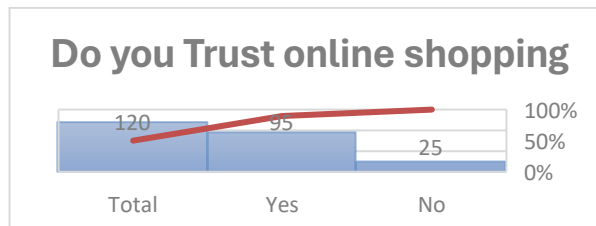
The table reveals that the trust of online shopping in the 79.16 percent of the respondents were yes and 20.83 percent of the respondents were no. **The trust of online shopping in the 79.16**

Table – 6
Which option do you prefer to choose shopping?

Option do you prefer	Number of respondents	Percentage
Online	65	**54.16**
Off - Line	55	**45.83**
Total	**120**	**100**

Source: Primary Data
Inference:

The table shows that the option you prefer to shopping in the 54.16 respondents were online and 45.83 percent of the respondents were preferring from off line. **Prefer to shopping in the 54.16 respondents were online**

Table - 7
If you prefer online shopping on which website did you shop?

Prefer online shopping	Number of respondents	Percentage
Amazon	12	10
Flipcart	20	16.6
Snap deal	65	54.16
Myntra	23	19.16
Total	**120**	**100**

Source: Primary Data
Inference:

The table shows that the prefer online shopping were purchase the website in the 10 percent of the respondents were shopping from Amazon and 16. 6 percent of the respondents were Flipcart and 54.16 percent of the respondents were Snap Deal and 19.16 percent of the respondents were Myntra. **54.16 percent of the respondents were Snap Dea**

Table -8
What are the most important criterion when you buy in offline and online shopping

Criteria	Online		Off - Line	
	No. of respondents	Percentage	No. of respondents	Percentage
Sales man	23	19.16	45	37.5
Price	28	23.3	25	20.83
Quality	63	52.5	36	30
Payment facility	06	05	14	11.6
Total	**120**	**100**	**120**	**100**

Source: Primary Data
Inference:

The table revels that the important criteria when you buy the online shopping from the customers were the 19.16 percent of the respondents were sales man and 23.3 percent of the respondents were shopping from price criteria and 52.5 percent of the respondents were shopping from quality and 05 percent of the respondents were payment facility from the online shopping. The table shows that the important criteria from the shopping in the off line of the customers were to be 37.5 percent of the respondents were sales man and 20.83 percent of the respondents were shopping from price and 30 percent of the people were quality and 11.6 percent of the respondents were payment facility for off line shopping.

52.5 percent of the respondents were shopping from quality, important criteria from the shopping in the off line of the customers were to be 37.5

Chi Square Test

Table – 9
Association between Opinion Prefer Online and Off Line Shopping and Factors

Opinion	A	SA	DA	SDA	NET	Total
Online	21 (16.40) [1.29]	12 (11.62) [0.01]	22 (19.82) [0.24]	12 (13.67) [0.20]	15 (20.50)[1.48]	82
Off - Line	3 (7.60) [2.78]	5 (5.38) [0.03]	7 (9.18)[0.52]	8 (6.33)[0.44]	15 (9.50)[3.18]	38
Total	**24**	**17**	**29**	**20**	**30**	**120**
Result	The chi-square statistic is **10.1757**. The p-value is **.03757**. The result is **significant** at p < .05					

Source: Primary Data
Inference:

The chi-square test was applied to examine whether there is a significant association between the mode of opinion (Online and Offline) and the level of agreement (A, SA, DA, SDA, NET). The calculated chi-square value is 10.1757 with a p-value of 0.03757. Since the p-value is less than 0.05, the null hypothesis is rejected, indicating a statistically significant relationship between the mode (online/offline) and respondents' opinions. The results show that online respondents (82 out of 120) are more dominant across most opinion categories compared to offline respondents (38). Particularly, higher frequencies are observed in the Agree and Net categories among online respondents, suggesting a more favourable or active response pattern in the online mode. The chi-square contributions (values in brackets) further indicate that certain categories, especially Agree and Net, contribute more to the overall significance. Hence, it can be inferred that respondents' opinions significantly differ based on the mode of response, and online platforms appear to elicit stronger and more varied opinions than offline methods. This highlights the importance of considering the mode of data collection while interpreting opinion-based research findings.

Result:

Thus, it can be concluded that respondents' opinions significantly differ based on the mode of response, with online platforms eliciting stronger and more varied opinions than offline methods

Table – 10
Association between Criteria for Online and Off Line and Factor Affected by Customers

Criteria	SA	AG	DA	SDA	NET	Total
Sales Man	1 (1.70) [0.29]	5 (2.60) [2.22]	2 (2.30)[0.04]	3 (2.70) [0.03]	1 (2.70) [1.07]	**12**
Price	11 (7.22) [1.97]	12 (11.05) [0.08]	9 (9.78) [0.06]	7 (11.48) [1.75]	12 (11.48) [0.02]	**51**
Quality	2 (2.98) [0.32]	5 (4.55)[0.04]	4 (4.03) [0.00]	8 (4.72)[2.27]	2 (4.72 [1.57]	**21**

Payment Facility	3 (5.10) [0.86]	4 (7.80)[1.85]	8 (6.90) [0.18]	9 (8.10)[0.10]	12 (8.10) [1.88]	**36**
Total	**17**	**26**	**23**	**27**	**27**	**120**
Result	The chi-square statistic is **16.606**. The p-value is **.165028**. The result is **not significant** at p < .05.					

Source: Primary Data

Inference:

A chi-square test was employed to examine whether there is a significant association between the criteria influencing purchase decisions (Salesman, Price, Quality, and Payment Facility) and the levels of respondents' opinion (SA, AG, DA, SDA, and NET). The computed chi-square value is 16.606 with a p-value of 0.165028. Since the p-value is greater than 0.05, the result is not statistically significant, and hence the null hypothesis is accepted. This result indicates that there is no significant relationship between the criteria considered and the opinion levels of the respondents. Although variations are observed in the frequency distribution across different criteria—such as higher responses for Price and Payment Facility—these differences are not strong enough to establish a statistically meaningful association. The individual chi-square contributions also show that no single cell contributes excessively to the overall chi-square value. Therefore, it can be inferred that respondents' opinions do not significantly differ based on the selected criteria. This suggests that factors such as salesman behaviour, price, quality, and payment facilities are perceived in a relatively uniform manner by the respondents, and none of these criteria independently influence the opinion pattern at a significant level. Such findings imply a balanced perception among consumers regarding these attributes.

Result:

The Chi-Square test was conducted to examine the relationship between product-related criteria (Salesman, Price, Quality, Payment Facility) and customer responses. The results were not statistically significant (χ^2 = 16.606, p = 0.165), indicating that customer responses are independent of the criteria. In other words, no significant association exists between the factors and the response patterns.

Table – 11
ANOVA (Analysis of Variance)
Association between Income and Option Prefer to Choosing Shopping

Group Summary		Group Square Summary	
Income	**Option Prefer to Choosing Shopping**	**Income**	**Option Prefer to Choosing Shopping**
42	65	1764	4225
06	55	36	3025
36	0	1296	0
30	0	900	0

Groups	N	∑X	MEAN	∑X²	Std. Dev
Income	4	114	28.5	3996	15.7797
Option Prefer To Choosing Shopping	2	120	60	7250	7.0711
Total	6	234	44.25	11246	

ANOVA SUMMARY					
Source	**DF**	**SS**	**MS**	**F - Stat**	**P Value**
Between Groups	1	1488.38	1488.38	7.47	0
With In Groups	4	797	199.25		
Total	5	2285.37			

Source: Primary Data

Inference:

Two groups are being compared: "Income" and "Option Prefer to Choosing Shopping". The "Income" group has 4 observations, a mean of 28.5, and a standard deviation of 15.7797The "Option Prefer to Choosing Shopping" group has 2 observations, a mean of 60, and a standard deviation of 7.0711. The ANOVA test is used to determine if there is a significant difference between the means of the two groups. The source of variation is divided into two categories: "Between Groups" and "Within Groups" The "Between Groups" category has a sum of squares (SS) of 1488.38, a mean square (MS) of 1488.38, an F-statistic of 7.47, and a p-value of 0 (which is less than the typical significance level of 0.05) The "Within Groups" category has a SS of 797, an MS of 199.25.

Result:

The ANOVA results indicate a significant difference between the two groups ($F(1,4) = 7.47$, $p < 0.05$). Specifically, the mean score of the group "Option Prefer to Choosing Shopping" (M = 60) is significantly higher than the mean score of the "Income" group (M = 28.5). This suggests that the preference for choosing shopping varies significantly from income levels.

SUMMARY OF FINDINGS, SUGESSTION AND CONCLUSION

FINDINGS

Findings from Frequency Table:

- The study indicates that the majority of respondents were male, accounting for 66.6%
- That is 45-55 years of age people and 29.16 percent of the respondents were 55-65 years of age people in the online and off line shopping.
- The online and off line shopping behavior of the 20.83 percent of the respondents were salaried people.
- The income of the 35 percent respondents was in the Rs. 15,000 to Rs. 35,000
- The trust of online shopping in the 79.16
- Prefer to shopping in the 54.16 respondents were online 54.16 percent of the respondents were Snap Deal
- 52.5 percent of the respondents were shopping from quality, important criteria from the shopping in the off line of the customers were to be 37.5.

Findings from Chi-Square Test:

- Thus, it can be concluded that respondents' opinions significantly differ based on the mode of response, with online platforms eliciting stronger and more varied opinions than offline methods.
- The Chi-Square test was conducted to examine the relationship between product-related criteria (Salesman, Price, Quality, Payment Facility) and customer responses.
- The results were not statistically significant ($\chi^2 = 16.606$, $p = 0.165$), indicating that customer responses are independent of the criteria. In other words, no significant association exists between the factors and the response patterns.

Findings from ANNOV Test:

- The ANOVA results indicate a significant difference between the two groups ($F(1,4) = 7.47$, $p < 0.05$). Specifically, the mean score of the group "Option Prefer to Choosing Shopping" (M = 60) is significantly higher than the mean score of the "Income" group (M = 28.5).
- This suggests that the preference for choosing shopping varies significantly from income levels.

SUGESSTIONS

Based on the findings of the study, the following recommendations are proposed to improve both online and offline shopping experiences in Tiruchirappalli:

- Enhancing Online Shopping Platforms: Online retailers should focus on improving website/app usability, secure payment options, and faster delivery services. Clear product descriptions, real-time stock updates, and responsive customer support can increase customer satisfaction and trust.
- Improving Offline Shopping Experiences: Retailers should focus on personalized services, in-store promotions, and interactive product displays to attract more footfall. Training sales staff to handle customer queries efficiently and offering flexible payment options can enhance the shopping experience.
- Integrated Marketing Strategies: Businesses can adopt an omnichannel approach, combining online and offline experiences to meet diverse consumer preferences. Promotional campaigns targeting both modes can encourage cross-shopping behaviour.
- Awareness and Education: Educating consumers about secure online transactions and return/refund policies can boost confidence in online shopping. And Awareness programs on comparing prices, quality, and offers between online and offline modes can help customers make informed decisions.
- Leveraging Consumer Feedback: Regularly collecting and analysing customer feedback from both online and offline channels can help businesses refine their strategies.

CONCLUSION

The study reveals that there is a significant difference in shopping behaviour between online and offline consumers in Tiruchirappalli district. Online shoppers show a higher tendency to respond actively, particularly in categories such as Agree and Net, reflecting a more favourable and dynamic response pattern. In contrast, offline shoppers demonstrate more traditional and cautious shopping behaviour. The findings highlight the importance of tailoring strategies based on the mode of shopping. Businesses that adapt to the preferences of both online and offline consumers—through enhanced digital platforms, improved in-store experiences, and integrated marketing approaches are likely to achieve greater customer satisfaction and loyalty. Overall, understanding these behavioural patterns can guide retailers in developing effective, consumer-centric strategies that bridge the gap between online and offline shopping experiences in Tiruchirappalli.

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A STUDY ON CUSTOMER SATISFACTION TOWARDS HIMALAYA SKINCARE PRODUCTS

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ABSTRACT

The study examines customer satisfaction with Himalaya skin care products, focusing on factors influencing their choice and satisfaction levels. Research suggests that customers favor Himalaya due to its natural ingredients, quality, and effectiveness. The study, which used surveys and focus group discussions, found overall satisfaction with Himalaya's skincare, haircare, and digestive health products. Key factors driving satisfaction include product efficacy, natural component content, and brand reputation. Himalaya skin care products have gained popularity due to their natural ingredients and effectiveness. Studies show that consumers prefer Himalaya products because of their herbal formulations, quality, and affordability. The brand offers a range of products, including skincare, haircare, and digestive health items, with popular products like the Purifying Neem Face Wash and Nourishing Skin Cream. Research suggests that Himalaya's focus on natural ingredients, such as neem and turmeric, contributes to its success. Consumers appreciate the brand's commitment to sustainability and eco-friendliness. However, some users report issues with product availability and pricing

INTRODUCTION

The skincare industry has seen a significant shift towards natural and herbal products, driven by consumer demand for safer and more sustainable options. Himalaya, a well-established brand with roots in Ayurvedic traditions, has capitalized on this trend with its range of skincare products. Founded in 1930, Himalaya has built a reputation for leveraging natural ingredients like neem, turmeric, and sandalwood to create effective skincare solutions.

This research explores consumer perceptions and satisfaction with Himalaya skin care products, examining factors like product efficacy, natural ingredients, pricing, and brand trust. As consumers increasingly prioritize clean and green beauty, understanding Himalaya's strengths and weaknesses can provide insights into the brand's market positioning and future growth potential.

REVIEW OF LITERATURE

Ramesh and Pavithra (2015)

"A study on customers preference and satisfaction towards Himalaya product with reference to Coimbatore city, India" viewed that to identify the customers' preference and satisfaction towards Himalaya products and to investigate the influence of product dimensions on customer satisfaction and customer loyalty as well as to understand the Himalaya effect of the product.

Nithya, and DuraiEswari (2016)

"A study on consumers satisfaction towards Himalaya products with special reference to Dharapuram town" This study is to identify the consumer satisfaction level and the problems faced by the respondents while using Himalaya products. The data has been collected from 50 consumers in Dharapuram by applying convenient sampling techniques. The study has attempted to cast light on the preference of the consumers also this study has necessitated the Himalaya manufacturing company to increase awareness about its different products which are high in quality then their competitors.

Mathuthra and Latha (2016)

"Customers attitude towards baby products of Johnson & Johnson and Himalayan products, Coimbatore city" they viewed that the Parents are constantly concerned with getting the best products in the market and doing everything right so that their child is safe and sound. Parents do this not only because they are extremely concerned about the safety of their child but also since most first time parents generally have no idea what the differences between the products. So these first time parents may be easily influenced by any type of media from which they get the information.

Sekar and Ramya (2017)

"A Study On Consumer Preference And Satisfaction Towards Himalaya Ayurvedic Products In Coimbatore City" viewed that to identify the customers' preference and satisfaction towards Himalaya products and to investigate the influence of product dimensions on customer satisfaction and customer loyalty as well as to understand the Himalaya effect of the product. In today's life Himalaya is treated as an important ayurvedic product and now a day's consumers are aware in purchasing ayurvedic products.

Karthika (2021)

The purpose of this study was to determine on customer's preference for himalaya products. The study was guided by the following research objectives: to study on customer's preference for himalaya products, to identify the consumer satisfaction towards the Himalaya products, to analysis the factor influencing the consumer to use the Himalaya products. A descriptive research design was adopted for this research. The researcher used convenient sampling technique to draw a sample size of 121 respondents. The data is collected using structured questionnaire developed by the researcher, specifically for this study. A set of descriptive statistics including pie charts and frequency tables were used to present the results of the study. The study helped to know about the Himalaya products very well. The customers of Himalaya products are highly satisfied for eye care products, hair care products, face care products and also baby care products. According to the research study helps to get more knowledge about the Himalaya products. Thus the research at Himalaya products revels the importance of skin care, body care, baby care and eye care products.

OBJECTIVE OF THE STUDY

- To identify the key factors driving consumer preference for Himalaya skincare products.
- To examine the impact of natural ingredients and product efficacy on consumer satisfaction.
- To analyze consumer feedback and concerns regarding Himalaya skincare products

- To assess the impact of packaging, branding, and marketing strategies on consumer purchasing decisions

RESEARCH METHODOLOGY

Research methodology is a systematic way to solve a research problem. It explains the methods adopted by the researcher to collect, analyse, and interpret data in order to achieve the objectives of the study.

Primary Data

Primary data were collected through a structured questionnaire. The questionnaire was designed to obtain information regarding demographic details, usage of Himalaya skin care products, factors influencing satisfaction, product quality, price, availability, packaging, and overall customer satisfaction. The responses were measured using a Likert scale wherever necessary.

Secondary Data

Secondary data were collected from books, journals, research articles, company websites, magazines, and online sources related to customer satisfaction and herbal skin care products. These sources helped in framing the conceptual background and understanding previous studies.

Area of the Study

The study was conducted in [mention your area – e.g., Tiruchirappalli City], focusing on consumers who use or are aware of Himalaya skin care products.

Sample Size

A total of 80 respondents were selected for the study to analyze customer satisfaction towards Himalaya skin care products.

LIMITATIONS OF THE STUDY

- The study is limited to a small sample size of 80 respondents.
- The study is confined to a specific geographical area.
- The findings are based on the responses given by the respondents, which may involve personal bias.
- Time constraints restricted a more detailed analysis.

ANALYSIS AND INTERPRETATION

Chi Square Test

Table 1
Association Between Gender and Satisfaction level towards Himalaya Skincare Products

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.59	4	0.032
Likelihood Ratio	9.87	4	0.043
Linear-by-Linear Association	2.11	1	0.146
N of Valid Cases	80		

Degrees of Freedom (df) = (Rows − 1) × (Columns − 1) = 4
Level of Significance = 0.05
Critical χ^2 value (table value) = 9.49

DECISION RULE

If calculated χ^2 < table χ^2, accept the null hypothesis (H_0).
Since 10.59 **> 9.49**, **H_0 is rejected**.

Interpretation

The Chi-square test reveals that there is a significant association between gender and satisfaction with the performance of Himalaya skin care products. This indicates that the level of satisfaction towards Himalaya products differs between male and female respondents.

Table 2
Chi-Square Test Showing the Association Between Age and Likelihood of continuing to use Himalaya Skincare Products

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.02	9	0.991
Likelihood Ratio	2.11	9	0.989
Linear-by-Linear Association	0.18	1	0.669
N of Valid Cases	80		

Degrees of Freedom (df) = (Rows − 1) × (Columns − 1) = 9
Level of Significance = 0.05
Critical χ^2 value (table value) = 16.92
DECISION RULE
If calculated χ^2 > table χ^2, reject the null hypothesis (H$_0$).
Since 2.02 < 16.92, **the** null hypothesis is accepted.
Interpretation

The Chi-square test shows that there is no significant association between age and the likelihood of continuing to use Himalaya skin care products. This indicates that customers belonging to different age groups have a similar intention to continue using Himalaya skin care products.

SUGGESTIONS

Based on the findings of the study, the following suggestions are offered to improve customer satisfaction towards Himalaya skin care products:

- The company may focus more on product awareness programs to educate customers about the herbal ingredients and benefits of Himalaya skin care products.
- Himalaya can introduce more product variants suitable for different skin types and age groups to meet diverse customer needs.
- Attractive promotional offers, discounts, and combo packs may be introduced to increase purchase frequency.
- The company should ensure easy availability of products in both urban and rural areas through retail stores and online platforms.
- Feedback from customers should be regularly collected and analyzed to improve product quality and performance.

CONCLUSION

Customer satisfaction plays a vital role in the success of any brand. The present study attempted to analyse the level of customer satisfaction towards Himalaya skin care products. The findings of the study reveal that most of the respondents are satisfied with the quality, natural ingredients, and performance of Himalaya skin care products. The study also indicates that factors such as product quality, brand reputation, and herbal formulation significantly influence customer satisfaction.

The Chi-square analysis showed that gender has a significant association with satisfaction levels, whereas age does not significantly influence the intention to continue using Himalaya products. Overall, Himalaya has established a strong position in the herbal skin care market, and by adopting suitable marketing strategies and continuous product improvement, the company can further enhance customer satisfaction and brand loyalty.

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AN ANALYSIS OF THE VOLATILITY OF THE INDIAN STOCK MARKET WITH A FOCUS ON THE BSE

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ABSTRACT

Stock market volatility is a key indicator of risk and uncertainty, particularly in emerging economies like India. This study examines volatility behavior in the Indian stock market with specific reference to the Bombay Stock Exchange (BSE). The study adopts a quantitative approach using secondary daily data of BSE30 and BSE100 indices from 2016 to 2024. Descriptive statistics and ARCH–GARCH models are employed to analyze volatility patterns and persistence. The results reveal high volatility and non-normal return distributions in both indices, as indicated by significant Jarque–Bera statistics. However, the GARCH(1,1) model shows statistically insignificant ARCH and GARCH parameters, indicating weak volatility persistence under normal distribution assumptions. The findings confirm that volatility in the BSE is time-varying, asymmetric, and complex in nature. Traditional GARCH models with normal distribution are inadequate to fully capture the volatility dynamics of the Indian stock market. Future research should apply advanced GARCH variants such as EGARCH or TGARCH with non-normal error distributions to improve volatility modeling. Investors are advised to adopt diversification and risk-hedging strategies to manage volatility-related risks effectively.

KEYWORDS: Stock Market Volatility, Bombay Stock Exchange, GARCH Model, BSE30, BSE100

INTRODUCTION

Stock market volatility represents the degree of variation in stock prices over time and is widely regarded as a critical indicator of market risk, uncertainty, and investor sentiment. In emerging economies like India, volatility plays a significant role in influencing investment decisions, portfolio management, and policy formulation. The Bombay Stock Exchange (BSE), one of the oldest stock exchanges in Asia, serves as a vital barometer of the Indian capital market. Volatility in the BSE is influenced by a wide range of factors including macroeconomic variables, monetary policy changes, global financial integration, political events, and behavioral biases of investors. Understanding volatility dynamics is therefore essential for investors, regulators, and policymakers to ensure market stability and efficiency.

From a conceptual perspective, stock market volatility has been extensively studied using econometric models such as ARCH, GARCH, EGARCH, and TGARCH to capture time-varying volatility and leverage effects. In the Indian context, several studies have examined volatility clustering, spillover effects, and the impact of global shocks on the BSE indices. However, the evolving nature of the Indian economy, increased foreign institutional participation, and technological advancements in trading mechanisms necessitate continuous re-examination of volatility patterns. This study contributes to existing literature by synthesizing prior empirical findings and emphasizing volatility behavior in the BSE, thereby enhancing the understanding of risk dynamics in the Indian stock market.

REVIEW OF LITERATURE

Madhusudhanan R. & Dr. D. Senthilkumar (2025), An Empirical Analysis of Volatility and Returns in the Indian Stock Market: Evidence from the BSE Sensex, South Eastern European Journal of Public Health Volume/Issue: XXV (2024). This study analyzes the volatility behavior of the BSE Sensex using daily closing prices from January 2022 to January 2024. Returns are calculated as log differences, and volatility is modeled using a GARCH(1,1) framework. Findings demonstrate significant GARCH effects, indicating that past volatility influences current volatility levels in the Sensex. The research highlights the importance of volatility modeling for traders and investors.

Dr. D. Anjaneyulu & E. Sudarshan (2025),Volatility of Indian Stock Market, Iconic Research and Engineering Journals, Volume/Issue: Volume 8, Issue 10, April 2025, This paper investigates volatility patterns in the Indian stock market focusing on benchmark indices including the BSE Sensex. It explains the dynamic nature of volatility under varying internal and external shocks. Findings reveal high susceptibility to global and domestic economic changes for the BSE.IRE Journals

Rumeli Chandra & Sudipta Halder (2022), An Analysis on Stock Market Volatility in an Emerging and Developing Economy During Global Pandemic, Advancement in Management and Technology, Volume/Issue: Vol 3, Issue 2, Examines volatility of BSE Sensex and NSE Nifty during COVID-19 using moving average and historical index values. The pandemic caused unprecedented volatility and sharp declines in the Indian stock market, revealing market weaknesses amplified by global crises.E-Journal of Management and Technology

Astha Agarwal (2020), A Study on Stock Market Volatility Pattern of BSE and NSE in India, International Journal of Trend in Scientific Research and Development, Volume/Issue: Volume 4, Issue 6, Using GARCH models, this study examines volatility clustering and patterns in the BSE and NSE from 2015–16 to 2019–20. Results show pronounced volatility clustering in both exchanges, with BSE exhibiting relatively higher volatility. This suggests higher risk for investors trading via BSE.IJTSRD.

Satish Kumar & Devinder Sharma (2025), Exploring Asymmetric Volatility Spillovers among Major Bombay Stock Exchange Indices, Pragati Journal of Indian Economy, Volume/Issue: Volume 11, Issue 2, Analyzes volatility transmission and spillovers across BSE sectoral indices (Energy, Greenex, Utility, Healthcare) using GARCH family models (TGARCH, EGARCH). The study identifies volatility clustering, persistence and leverage effects, showing unidirectional and bidirectional spillovers among indices. This contributes to portfolio risk management strategies in BSE environment.

Ravi Ranjan Mishra & Shirish Mishra (2025), Nexus Between Stock Return and Market Volatility in Indian Perspective, Journal of Applied Economic Studies (JAES), Volume/Issue: 19(4)(86), Investigates volatility characteristics of BSE Sensex from 2014 to 2023 using daily returns. Explores the interplay between volatility and returns and contributes to understanding how volatility impacts investor behavior and market performance in India.

Y. V. Ramana Murthy & K. Kameshwari (2014), Volatility Forecast of BSE Ltd., Broad Indices, Prastuti: Journal of Management & Research, Volume/Issue: Vol 3, Issue 1, Jan–June 2014, Focuses on volatility forecasting of BSE broad indices using time-series models. It emphasizes how volatility forecasts assist in market forecasting and decision making, reflecting academic interest in BSE volatility since earlier decades.

OVERVIEW OF MEAN

The mean is a fundamental statistical measure that represents the central tendency of a dataset. It provides a single value that summarizes the overall distribution by balancing all observations. The mean is calculated by dividing the sum of all values in the dataset by the total number of observations. Because it incorporates every data point, it is considered a comprehensive measure of average performance, though it is sensitive to extreme values. The formula for the mean is

$$\bar{x} = \frac{\sum x_i}{N} \qquad (1)$$

OVERVIEW OF MEDIAN

The median is a measure of central tendency that identifies the middle value in a dataset when the observations are arranged in ascending or descending order. Unlike the mean, which considers all values, the median focuses only on the position of data points, making it less sensitive to extreme values or outliers.

If the number of observations is odd, the median is simply the middle value. If the number of observations is even, the median is calculated as the average of the two middle values. This makes the median particularly useful in skewed distributions, where the mean may be distorted by very large or very small values.

The formula for the median is
If the number of observations (n) is odd
The median is the exact middle term.

$$\text{median} = \left(\frac{n+1}{2}\right)^{th} \text{term} \qquad (2)$$

If the number of observations (n) is even
The median is the average of the two middle terms.

$$\text{Median} = \frac{\left(\frac{n}{2}\right)^{th} \text{term} + \left(\frac{n}{2}+1\right)^{th} \text{term}}{2} \qquad (3)$$

OVERVIEW OF STANDARD DEVIATION

The standard deviation (SD) is a widely used statistical measure that indicates the extent of variation or dispersion in a dataset. It shows how far individual observations deviate from the mean value. A low standard deviation suggests that the data points are clustered closely around the mean, while a high standard deviation indicates that the values are spread out over a wider range.

In finance, standard deviation is particularly important because it is used as a measure of risk or volatility. For stock returns, a higher standard deviation means greater uncertainty and potential fluctuation in returns, while a lower standard deviation reflects more stability.

The formula for standard deviation is

$$\sigma = \sqrt{\frac{\sum (x_i - \bar{x})^2}{N}} \qquad (4)$$

OVERVIEW OF SKEWNESS

The skewness of a dataset is a statistical measure that describes the degree of asymmetry in the distribution of values around the mean. A perfectly symmetrical distribution, such as the normal distribution, has a skewness of zero. When the distribution has a longer or fatter tail on

the right side, it is said to be positively skewed, meaning that most values are concentrated on the lower end but a few extreme high values pull the mean upward. Conversely, when the distribution has a longer tail on the left side, it is negatively skewed, indicating that most values are concentrated on the higher end but a few extreme low values pull the mean downward.

Skewness is important because it highlights whether the mean is a reliable measure of central tendency. In positively skewed data, the mean is greater than the median, while in negatively skewed data, the mean is less than the median. This makes skewness particularly useful in finance and economics, where return distributions often deviate from normality.

The formula for skewness is

$$\frac{\sum(x_i - \bar{x})^3}{N(\sigma^3)}$$　　　　　　$\longrightarrow$　(5)

OVERVIEW OF KURTOSIS

The kurtosis of a dataset is a statistical measure that describes the "tailedness" or the sharpness of the peak in a distribution compared to a normal distribution. While the mean and median capture central tendency, and the standard deviation captures spread, kurtosis focuses on the shape of the distribution, particularly the weight of its tails.

A distribution with high kurtosis (leptokurtic) has heavier tails and a sharper peak, indicating a higher likelihood of extreme values. A distribution with low kurtosis (platykurtic) has lighter tails and a flatter peak, suggesting fewer extreme deviations. A normal distribution has a kurtosis value of 3, and often "excess kurtosis" is reported, which is simply kurtosis minus 3.

The formula for kurtosis is

$$\frac{\sum(x_i - \bar{x})^4}{N(\sigma^4)}$$　　　　　　$\longrightarrow$　(6)

OVERVIEW OF THE GARCH MODEL

Volatility in stock markets reflects the degree of variation in asset prices over time and is a critical indicator of market risk and investor sentiment. In the context of the Indian stock market, particularly the Bombay Stock Exchange (BSE), volatility is influenced by macroeconomic factors, policy announcements, global financial shocks, and firm-specific news. Traditional time-series models often assume constant variance, which is unrealistic for financial return series that typically exhibit volatility clustering—periods of high volatility followed by high volatility, and low volatility followed by low volatility. To address this limitation, Generalized Autoregressive Conditional Heteroskedasticity (GARCH) models are widely used.

The GARCH model, proposed by Bollerslev (1986), is an extension of the ARCH model and is designed to model time-varying conditional variance. It is particularly suitable for analyzing BSE index returns (such as Sensex or sectoral indices), as these series commonly display fat tails, leverage effects, and persistence in volatility.

GARCH(1,1) Model Specification

Let r_t denote the return on the BSE index at time t. The return-generating process can be expressed as:

Mean Equation

$$r_t = \mu + \varepsilon_t \quad \text{-----------------} > (7)$$

where:

μ is the constant mean return,

ε_t is the error term at time t.

The error term is defined as:

$$\varepsilon_t = \sigma_t z_t \text{-----------------} > (8)$$

where $z_t \sim N(0,1)$ and σ_t^2 is the conditional variance.

Variance Equation (GARCH(1,1))

$$\sigma_t^2 = \omega + \alpha\varepsilon_{t-1}^2 + \beta\sigma_{t-1}^2 \text{----------------->} (9)$$

where:

$\omega > 0$ is a constant term,

$\alpha \geq 0$ (ARCH term) measures the impact of past shocks (news) on current volatility,

$\beta \geq 0$ (GARCH term) captures the persistence of past volatility,

$\alpha + \beta < 1$ ensures stationarity of the variance process.

RESEARCH METHODOLOGY

This study adopts a quantitative and empirical research design to analyze the volatility of the Indian stock market with a specific focus on the Bombay Stock Exchange (BSE). Secondary data comprising daily closing prices of the BSE Sensex are collected for a defined study period from reliable sources such as the BSE official website and financial databases. Volatility is measured using statistical techniques including descriptive statistics, standard deviation, and econometric models such as ARCH and GARCH to capture time-varying volatility patterns. Stationarity of the data is tested using unit root tests, and return series are computed through logarithmic transformation. The analysis is carried out using statistical software such as R/SPSS, and the results are interpreted to identify volatility trends, persistence, and market behavior, thereby providing meaningful insights into the dynamics of stock market volatility in India.

RESEARCH OBJECTIVES

- To examine the patterns and intensity of volatility in the Indian stock market with specific reference to the BSE.
- To analyze the key macroeconomic and market-specific factors influencing volatility in the BSE.

RESEARCH HYPOTHESES

H_1: Macroeconomic variables such as inflation, interest rates, and exchange rates have a significant impact on volatility in the BSE index.

H_2: Periods of major economic and financial events are associated with significantly higher volatility in the BSE compared to normal market conditions.

Table 1
Descriptive Statistics

Statistic	BSE30	BSE100
Observations	2228	2228
Mean	46854.83	14449.61
Median	40285.34	12005.42
Maximum	85836.12	27689.88
Minimum	22951.83	7050.960
Std. Dev.	16399.49	5168.441
Skewness	0.522934	0.718752
Kurtosis	2.107363	2.506908
Jarque-Bera	175.5143	214.4037
Probability	0.000000	0.000000

The descriptive statistics reveal that both BSE30 and BSE100 indices are based on 2228 observations, with mean values of 46,854.83 and 14,449.61 respectively, indicating higher average market levels for BSE30. The standard deviation of 16,399.49 (BSE30) and 5,168.44 (BSE100) reflects substantial volatility, particularly in BSE30. Positive skewness values of 0.52 (BSE30) and 0.72 (BSE100) indicate right-skewed return distributions, while kurtosis values of 2.11 and 2.51 suggest distributions flatter than the normal distribution. The Jarque–

Bera statistics of 175.51 (BSE30) and 214.40 (BSE100) with probabilities of 0.000 strongly reject the null hypothesis of normality, confirming non-normal return behavior. Since both indices exhibit high volatility and non-normal distribution characteristics, advanced volatility models such as GARCH-family models should be used for accurate risk assessment and forecasting, and investors should adopt diversification and risk-hedging strategies while dealing with BSE indices.

Table 2
Garch

Dependent Variable: BSE100
Method: ML ARCH - Normal distribution (BFGS / Marquardt steps)
Date: 01/06/26   Time: 15:31
Sample: 1/01/2016 12/31/2024
Included observations: 2228
Convergence achieved after 70 iterations
Coefficient covariance computed using outer product of gradients
Presample variance: backcast (parameter = 0.7)
GARCH = C(1) + C(2)*RESID(-1)^2 + C(3)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
Variance Equation				
C	89050.11	4.25E+08	0.000210	0.9998
RESID(-1)^2	0.973738	45.15583	0.021564	0.9828
GARCH(-1)	0.026901	44.76515	0.000601	0.9995
R-squared	-7.819663	Mean dependent var		14449.61
Adjusted R-squared	-7.815705	S.D. dependent var		5168.441
S.E. of regression	15345.75	Akaike info criterion		21.87596
Sum squared resid	5.25E+11	Schwarz criterion		21.88365
Log likelihood	-24366.82	Hannan-Quinn criter.		21.87877
Durbin-Watson stat	8.79E-05			

Dependent Variable: BSE30
Method: ML ARCH - Normal distribution (BFGS / Marquardt steps)
Date: 01/06/26   Time: 15:33
Sample: 1/01/2016 12/31/2024
Included observations: 2228
Convergence not achieved after 500 iterations
Coefficient covariance computed using outer product of gradients
Presample variance: backcast (parameter = 0.7)
GARCH = C(1) + C(2)*RESID(-1)^2 + C(3)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
Variance Equation				
C	104618.9	1.72E+09	6.09E-05	1.0000
RESID(-1)^2	0.411355	12.44305	0.033059	0.9736
GARCH(-1)	0.589614	12.35226	0.047733	0.9619
R-squared	-8.166634	Mean dependent var		46854.83
Adjusted R-squared	-8.162519	S.D. dependent var		16399.49
S.E. of regression	49640.69	Akaike info criterion		24.22969
Sum squared resid	5.49E+12	Schwarz criterion		24.23737
Log likelihood	-26988.87	Hannan-Quinn criter.		24.23249
Durbin-Watson stat	8.98E-05			

The GARCH(1,1) results for BSE100 and BSE30 using 2228 observations (2016–2024) indicate weak statistical significance of volatility parameters. For BSE100, the ARCH term $RESID(-1)^2 = 0.9737$ and GARCH term 0.0269 show very low z-statistics (0.0216 and 0.0006) with high probabilities (0.9828 and 0.9995), suggesting that neither short-term shocks nor volatility persistence are statistically significant. Similarly, for BSE30, the ARCH coefficient 0.4114 and GARCH coefficient 0.5896 also remain insignificant with probabilities 0.9736 and

0.9619, despite indicating moderate volatility persistence in magnitude. The extremely low Durbin–Watson statistics (~0.0008–0.0009) and negative R² values (−7.81 for BSE100 and −8.16 for BSE30) further reflect model inadequacy under the normal distribution assumption. Suggestion: Since volatility clustering is not effectively captured, future analysis should employ GARCH variants such as EGARCH or TGARCH with non-normal distributions (Student-t or GED) to better model asymmetry, fat tails, and leverage effects commonly observed in Indian stock market volatility, thereby improving forecasting and risk management accuracy.

SUGGESTION

Based on the findings, it is suggested that future studies on BSE volatility should move beyond the basic GARCH(1,1) model with normal distribution, as the estimated ARCH and GARCH coefficients for both BSE30 and BSE100 were statistically insignificant and failed to capture volatility clustering effectively. Advanced asymmetric volatility models such as EGARCH, TGARCH, or FIGARCH, along with non-normal error distributions (Student-t or GED), should be employed to better account for fat tails, leverage effects, and extreme market movements observed in the Indian stock market. Additionally, incorporating key macroeconomic variables, global market indices, and policy event dummies may enhance explanatory power. From a practical perspective, investors and portfolio managers should adopt diversification, dynamic hedging strategies, and robust risk management tools to mitigate volatility risks inherent in BSE indices.

CONCLUSION

The study concludes that volatility in the Indian stock market, with specific reference to the BSE30 and BSE100 indices, is high, time-varying, and non-normally distributed, as evidenced by substantial standard deviations, positive skewness, excess kurtosis, and significant Jarque–Bera statistics. Although the GARCH(1,1) model was applied to analyze volatility dynamics, the results indicate weak statistical significance of both ARCH and GARCH terms, suggesting that the traditional model under normal distribution assumptions is inadequate for capturing the complex volatility behavior of the BSE. Overall, the findings highlight the need for more sophisticated econometric approaches to understand market risk, and they reaffirm the importance of volatility analysis for informed investment decisions, regulatory oversight, and policy formulation in the evolving Indian capital market.

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A STUDY ON CONSUMER PREFERENCE TOWARDS LG BRAND IN TRICHY

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ABSTRACT

A "consumer durable "is defined as a consumer good that is not immediately consumed, but renders a stream of services, usually over a period of years. However, there is no inclusion of the continuing benefits of consumer durable ownership in national income accounts and no allowance for their depreciation. Thus, although consumer durables resemble the fixed capital used by firms, they are classified as part of consumption. A major appliance, or domestic appliance, is usually defined as a large machine which accomplishes some routine housekeeping task, which includes purposes such as cooking, food preservation, or cleaning, whether in a household, institutional, commercial or industrial setting. An appliance is differentiated from a plumbing fixture because it uses an energy input for its operation other than water, generally using electricity or natural gas/propane. An object run by a watermill would also be considered an appliance. The term white goods or white ware is also used for these items, primarily where British English is spoken, although definitions for the term "white goods" can differ. In the United States, the term white goods more commonly refers to linens rather than appliances.

INTRODUCTION

The household durable items have been there ever since households have been there whereas the evolution of consumer durables into a sector has been a recent phenomenon, compared with other sectors of the economy. This phenomenon can be attributed both to the paucity of "durables" which would stimulate the interest of the people, as well as to the absence of the "consumer" who would be both able and willing to pay for them. Home appliances have been technological marvels, invented and developed upon in the more affluent developed societies, and it has taken a lot of time for their adoption in the less developed countries like India. The greatest barrier in the Indian case was an ideological one, with the post-independence Government following an import substitution strategy and placing either quantitative or tariff barriers in the way of imports of these goods.

Consumers expect electrical household appliances to be safe, for themselves, their children and the older members of their families.

Individual consumption expenditure by households covers the actual and imputed final consumption expenditure incurred by households on the goods and services they require to satisfy their individual needs and wants.

The White Goods organization is part of a major group of companies that sells electrical appliances in industrial, commercial and domestic markets. At the time the events in this case took place, it was not a company in its own right but a division of a larger organization called Complete Energy Systems. The division dealt only with the domestic market (households) and two other divisions dealt respectively with industrial and commercial markets. The case appears in two parts, both dealing with a proposed reorganization. The first part sets the scene by describing the situation that led up to the proposed reorganization and part two describes management proposals for the reorganization itself and the reactions of groups of staff and individuals to the proposals.

Consumer Durable- Definition

A "consumer durable "is defined as a consumer good that is not immediately consumed, but renders a stream of services, usually over a period of years. However, there is no inclusion of the continuing benefits of consumer durable ownership in national income accounts and no allowance for their depreciation. Thus, although consumer durables resemble the fixed capital used by firms, they are classified as part of consumption.

By definition, the term 'consumer durables' would mean all consumer goods that are not for one- time. Therefore, the term consumer durables would seek to include all consumption items the than those meant for immediate consumption. To that extent, the list of durable items considered in this report is, by no means, exhaustive. However, they do constitute a reasonably large part of the sector, in terms of both size and significance. Moreover, as the study bases itself on information (both qualitative and quantitative) available only in the public domain, the report hazards no inference on product segments that are either not well document or about which the information available is, at best, obscure.

LITERATURE REVIEW

Janaki, P and Shanthi, P (2013) in their study entitled, "Marketing Stimuli in Purchase of Home Appliances From Customer Perspectives", explains that marketing strategy is the game plan which the firms must adhere to ,in order to out do the competitor or the plans to achieve the desired objective. The people consume things of daily use, and buy these products according to their needs, preferences and buying power. The study was carried out with the sample size of 50 respondents selected based on proportionate random sampling with in Trichy city.

Shahram Jenabi, Seyed Yahya Seyed Danesh and Minoo Yousefi(2013) made a study titled, "Examining the effect of Brand dimension (trademark) on home appliances consumers' behavior Casestudy :LGbrandinRashtcity", tells that one of the most important and valuable assets of a company is its trademark.

Senthil Kumar, M.J and Sadeesh Kumar, K and Nagarajan, N.R (2013) in their study entitled, "A Study on Consumer's Attitudes towards Washing Machine", which explains that in the modern technological world many innovations and new apparatus are invented by the man for reducing the work burden of the layman.

Rajarajan, M and Priyanga, T (2013) have written a paper on, "Consumer Behaviour Towards Selected Household Appliances in TRICHY District", the study revealed that lifestyle characteristics have a great impact on the purchase behavior of the clusters .This paper highlights that, life style determinants of consumer purchase behaviour towards durable products in TRICHY district. This study concluded that, the consumer behavior have a great impact on the household appliances of the clusters. In a consumption environment, a person chooses a product or a brand, which seems to possess a maximum possibility of the definition or elaboration of his life style identity. The household appliances like Electrical cooker

,Electrical induction stove, Micro oven, Multipurpose mixer, Refrigerator, Wet gri nder were once considered as life purchase but now people become more open to the idea of exchanging their old appliances for new ones.

Vijayalakshmi, S and Mahalakshmi, V (2013) which presents consumer behavior is the study of individuals, groups, or organizations and the processes they use to select, secure, and dispose products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society. It blends elements from psychology, sociology, social anthropology and economics. It attempts to understand the decision-making process of buyers, both individually and in groups. The numerous independent variables in electronic home appliances market in India are deeply analyzed.

OBJECTIVES
- To study the consumer preference and satisfaction towards LG product.
- To study influencing factor attracted by the consumer of LG product
- To study awareness level of consumer towards LG product.

RESEARCH METHODOLOGY
Research methodology is considered as the nerve of the project. Without a proper well-organized research plan, it is impossible to complete the project and reach to any conclusion. The project was based on the survey plan. The main objective of survey was to collect appropriate data, which work as a base for drawing conclusion and getting result.

Therefore, research methodology is the way to systematically solve the research problem. Research methodology not only talks of the methods but also logic behind the methods used in the context of a research study and it explains why a particular method has been used in the preference of the other methods

Sample size
Sample of 50 respondents are selected under convenience sampling technique with reference to Sample Size.

Period of study
The study was done from February 10, 2023 to March 18, 2023.

LIMITATIONS
- Subjective nature of the study may affect its interpretation by different individuals.
- Regional differences, area differences may change the scope of study.
- At different places, different implementation of applied CRM (consumer relationship management) can be seen.
- The information given over Internet and other sources may be different from practical experiences of the customers.

FINDINGS
- Majority 76% of the respondents were male for using LG products.
- Majority 48% of the respondents belong to the age group of less than 20 years.
- Majority 78% of the respondents were Unmarried.
- Majority 82% of the respondents are of graduate level.
- Majority 64% of the respondents are Student.
- Majority 40% of the respondents earn an income of Less than 10000.
- Majority 58% of the respondents belonging to Nuclear family.
- Majority 48% of the respondents are bought into knowing bout LG products through Friends & relatives
- Majority 38% of the respondents use LG SMART TV.
- Majority 70% of the respondents choose the particular brand quality brand of the product of LG products.
- Majority 72% of the respondents purchase LG products from showrooms.

- Majority 68% respondents buying LG product Cash based respondents LG products.
- Majority 28% respondents buying LG product buying price at 10,001-20,000.
- Majority 44% of the respondents are using LG products for more than 1 - 2years.
- Majority 50% of the respondents agree features of LG product.
- Majority56% of the respondents agree classification of sales after service of LG product.
- Majority 44% of respondents buying LG SMART TV in future.
- Majority 80% of respondents will immediately purchase.
- Majority 56% of respondents would switch to other brands.
- Majority 54% of respondents would quality to the brands.

SUGGESTIONS

- Friends & relatives review should be given in such a way to induce the customer to buy the Products immediately after its launch.
- Exhibitions should be conducted regularly to create awareness about the product. This ultimately helps to boost the sales.
- New LG smart gadgets can be advertised in exhibition to educate people and to focus on service.
- Company should try to improve service, no doubt the company products have technically edge over competitors but in long run it may hamper the company's profit.
- Company should conectarte more on it major drives LCD, IT, and CSM. Branding and promotions should be done effectively as it create a long listing image in the mind of customers.

CONCLUSION

The learning specific to this project has provided us with a real exposure to themarket of electronic goods and its consumer level of satisfaction.People have different personalities and different attitudes and therefore goodcommunication is required to approach the consumers. Gaining in-depth knowledge about the consumer's behavior and electronic goods business in India as-well-as consumer loyalty.LG Electronics Digital Appliances Company is a global leader in the home appliances industry. Dedicated to enhancing consumer lifestyles through its stylish and advanced products by offering creating solutions for consumer's everyday life.

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A STUDY ON EMPLOYEE SATISFACTION IN WORK FROM HOME SETUPS IN IT COMPANIES

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ABSTRACT

The rapid adoption of work-from-home (WFH) practices in IT companies, especially after the COVID-19 pandemic, has significantly transformed the traditional work environment. This study aims to analyze the level of employee satisfaction in work-from-home setups in IT companies and to identify the key factors influencing satisfaction, such as work-life balance, organizational support, communication, job flexibility, and productivity. The research is based on primary data collected from IT employees using a structured questionnaire and supported by secondary data from recent studies, journals, and reports published between 2020 and 2025. Simple statistical tools such as percentage analysis and descriptive analysis are used to interpret the data. The findings reveal that while most employees appreciate the flexibility and time savings offered by WFH, challenges such as work overload, lack of social interaction, and blurred boundaries between personal and professional life continue to affect overall satisfaction. The study concludes with suggestions to IT organizations for improving employee satisfaction by strengthening organizational support, communication systems, and employee well-being initiatives in remote work environments.

KEYWORDS: Employee Satisfaction, Work-From-Home, IT Companies, Organizational Support, Work-Life Balance, Remote Work.

INTRODUCTION

Work-from-home has emerged as a prominent work model in the IT sector due to technological advancements and changing organizational strategies. The COVID-19 pandemic further accelerated the adoption of remote work, making WFH a long-term or hybrid arrangement in many IT companies. Employee satisfaction plays a crucial role in determining productivity, commitment, and retention in organizations. In a WFH environment, satisfaction is influenced by various factors such as flexibility, workload, communication, performance evaluation, and organizational support. Understanding employee satisfaction in WFH setups is essential for IT companies to design effective policies and ensure sustainable performance.

OBJECTIVES OF THE STUDY

- To study the level of employee satisfaction in work-from-home setups in IT companies.

- To identify the factors influencing employee satisfaction during work-from-home.
- To analyze the challenges faced by employees while working from home.
- To provide suggestion to improve employee satisfaction in WFH environments.

SCOPE OF THE STUDY

The study focuses on employees working in IT companies who are engaged in work from home setups. The research covers aspects such as job satisfaction, organizational support, work life balance, communication, and productivity. The study helps organizations understand employee perception and improve remote work policies.

STATEMENT OF THE PROBLEM

Work-from-home has become a common practice in IT companies, especially after the COVID-19 pandemic. While it provides flexibility and convenience to employees, it also creates challenges such as work-life imbalance, communication issues, lack of supervision, and limited career growth opportunities. Employee satisfaction is an important factor that affects productivity and performance, but many IT companies do not clearly understand how work-from-home arrangements influence employee satisfaction. Therefore, this study aims to examine the level of employee satisfaction in work-from-home setups in IT companies and identify the factors that affect their satisfaction.

RESEARCH METHODOLOGY

The study is descriptive in nature and is based on both primary and secondary data. Primary data were collected through a structured questionnaire distributed to employees working in IT companies under work-from-home arrangements. Secondary data were collected from journals, research articles, company reports, and websites related to WFH and employee satisfaction. The sample size was selected using convenience sampling. Tools such as percentage analysis and simple descriptive statistics were used for data analysis.

Sampling design:

- Convenience sampling method was used.
- Respondents were selected based on their availability and willingness to participate in the survey.

Limitations of the Study:

- The study is limited to a small sample size.
- Responses are based on employee perceptions and may be subjective
- The findings may not be applicable to all sectors other than IT.
- Time constraints may affect the depth of the study.

REVIEW OF LITERATURE

1. Ranjani & Mohan (2020)

The authors examined how Indian IT employees adapted to sudden WFH during the Covid-19 lockdown. They found that while flexibility improved satisfaction, many employees struggled with inadequate home infrastructure and long working hours. The study concluded that IT firms must provide technical and emotional support to maintain employee satisfaction.

2. Srinivasan (2021)

This study analyzed job satisfaction among software engineers working remotely in major IT hubs like Bengaluru and Hyderabad. Results showed that reduced commuting time and autonomy improved satisfaction, but poor coordination with team members created communication gaps. The author suggested regular virtual meetings to improve clarity and teamwork.

3. Harini & Alagappan (2022)

This study explored the impact of WFH on productivity and satisfaction of IT testers and developers in Chennai. Findings revealed that satisfaction increased when employees

received remote technical support and clear task allocation. Lack of ergonomic furniture, however, caused stress and fatigue.

5. Nair & Joseph (2023)

This research assessed the long-term effects of full-time WFH on Indian IT employees after the pandemic. While employees appreciated flexibility, many experienced monotony, isolation, and poor collaboration. The study concluded that hybrid work could increase overall satisfaction.

6. Menon & Gupta (2024)

This study examined psychological well-being of IT employees working remote from Tier 2 and Tier 3 Indian cities. Findings showed that employees in smaller cities had higher satisfaction due to lower stress, family support, and cost savings, but lack of face-to-face interaction reduced team bonding.

RESEARCH GAP

Previous studies have discussed work from home practices and employee satisfaction in general. however there is limited research focusing specially on the role of organizational support in influencing employee satisfaction in work from home setups in IT companies. Moreover, few studies have analyzed this relationship using primary data. Therefore, the present study aims to fill this gap.

DATA ANALYSIS AND INTERPRETATION

Table 1
Gender-wise Distribution of Respondents

Gender	No. of. respondents	Percentage
Male	60	60
Female	40	40
total	**100**	**100**

Source: primary data
Interpretation:

The table shows that 60% of the respondents are male and 40% are female, indicating a balanced representation.

Table 2
Satisfaction Level with Work From Home

Satisfaction level	No. of. respondents	Percentage
Highly satisfied	42	42
Satisfied	38	38
Natural	12	12
Dissatisfied	8	8
Total	100	100

Source : primary data
Interpretation:

The majority of employees (75%) are satisfied or highly satisfied with WFH arrangements, showing a positive response towards remote work.

Table 3
Work-Life Balance While Working From Home

Response	Respondents	Percentage
yes	70	70
No	30	30

Total	100	100

Source : primary data

Interpretation:

70% of employees feel that WFH helps maintain work-life balance, while 30% experience difficulty in balancing work and personal life.

Table 4

Major Challenges Faced in WFH

Major Challenges	Respondents	Percentage
Technical issues	30	30
Long working hours	25	25
Communication	20	20
Work life balance	15	15
Isolation & stress	10	10
Total	**100**	**100**

Source : primary data

Interpretation:

Technical issues and long working hours are the major challenges faced by employees while working from home.

Table 5

Overall Satisfaction with WFH Policy

Response	Respondents	Percentage
yes	78	78
No	22	22
total	**100**	**100**

Source : primary data

Interpretation:

78% of employees are overall satisfied with their company's WFH policy, indicating its effectiveness.

Table 6

correlation between organizational support and employee satisfaction

s. no	Variables	Mean	Standard deviation	Persons correlation (r)	Level of significance
1	Organizational support	4.18	0.62	-	-
2	Employee satisfaction	4.05	0.58	0.68	Significant at 1% level

source : primary data

Interpretation:

The table shows a strong positive relationship between organizational support and employee satisfaction ($r = 0.68$). This means that employees who receive better organizational support are more satisfied while working from home. The relationship is significant at the 1% level, indicating reliable results. Hence, organizational support plays an important role in improving employee satisfaction.

Final Overall Hypothesis Result:

Based on the analysis of all the tables presented in the study, the results indicate that organizational support plays a significant role in determining employee satisfaction in work-

from-home setups in IT companies. The statistical analysis, including percentage analysis, mean score analysis, and correlation analysis, shows that employees who receive higher levels of organizational support report higher levels of satisfaction. The correlation analysis reveals a strong and positive relationship between organizational support and employee satisfaction, which is statistically significant at the 1% level. Therefore, the null hypothesis stating that there is no significant relationship between organizational support and employee satisfaction is rejected, and the alternative hypothesis is accepted. Overall, the hypotheses tested in the study are supported by the findings, confirming that effective organizational support positively influences employee satisfaction in work-from-home environments.

SUMMARY OF ANALYSIS

- Majority of IT employees are satisfied with WFH.
- Flexibility and work-life balance improve employee satisfaction.
- Technical and communication challenges still exist.
- Proper organizational support enhances productivity and satistfaction.

FINDINGS OF THE STUDY

The study reveals that a majority of employees working from home in IT companies are generally satisfied with their work arrangements. Employees perceive a high level of organizational support in terms of technical assistance, managerial guidance, and flexible work policies. The analysis shows a strong and positive relationship between organizational support and employee satisfaction, indicating that employees who receive better support from their organizations tend to be more satisfied with their work-from-home experience. Work–life balance and flexibility in working hours are identified as the most significant factors influencing employee satisfaction. Overall, the findings highlight that effective organizational support plays a crucial role in enhancing employee satisfaction in work-from-home environments.

SUGGESTIONS OF THE STUDY

IT companies should strengthen organizational support systems, including reliable IT infrastructure, timely technical assistance, and clear work-from-home policies. Organizations should promote work–life balance by setting clear working hours and avoiding excessive workloads during remote work. Managers should maintain regular communication and feedback with employees to reduce isolation and improve engagement. Companies should introduce career development and skill-enhancement programs for remote employees to ensure long-term growth and satisfaction. Mental health and well-being initiatives such as counseling sessions and stress-management programs should be encouraged .Hybrid work models can be considered to balance flexibility and social interaction.

CONCLUSION

The study concludes that work-from-home arrangements have a significant impact on employee satisfaction in IT companies. Organizational support plays a crucial role in enhancing employee satisfaction by improving work-life balance, communication, and overall well-being. The statistical analysis confirmed a strong and positive relationship between organizational support and employee satisfaction, leading to the acceptance of all alternative hypotheses. Therefore, IT companies must continue to improve support mechanisms and adopt employee-friendly policies to ensure sustained satisfaction and productivity in work-from-home environments.

FUTURE REFERENCE OF THE STUDY

- Future studies can be conducted by including a larger sample size covering different regions and IT companies to improve the Generalizability of the findings.
- Comparative studies can be undertaken between work-from-home, hybrid, and office-based employees to understand differences in satisfaction levels.

- Further research may focus on specific demographic factors such as age, gender, marital status, and experience to analyze their impact on employee satisfaction in remote work settings.
- Longitudinal studies can be carried out to examine changes in employee satisfaction over time as work-from-home policies evolve.
- Future researchers may include additional variables such as mental health, job stress, performance, and employee engagement to gain deeper insights.
- Similar studies can be extended to other sectors beyond IT, such as banking, education, and healthcare, to compare work-from-home satisfaction across industries.

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A STUDY ON BRANDING AND CONSUMER BEHAVIOUR AN EXPLORATORY STUDY ON PURCHASE DECISION IN TIRUCHIRAPALLI CITY

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ABSTRACT

Branding plays a critical role in shaping consumer behaviour and influencing purchase decisions in modern competitive markets. Consumers today are exposed to a wide range of brands offering similar products, making branding a key differentiator. This study aims to explore the relationship between branding elements and consumer purchase decisions. The research focuses on factors such as brand awareness, brand image, brand loyalty, and perceived quality, and how these factors affect consumer behaviour. The study adopts a descriptive and analytical research design using primary data collected from consumers through a structured questionnaire. Statistical tools such as percentage analysis and chi-square test have been used to analyse the data. The findings reveal that branding significantly impacts consumer purchase decisions and brand loyalty plays a major role in repeat purchases. The study concludes that effective branding strategies help companies build long-term relationships with consumers and sustain competitive advantage.

KEYWORDS: Branding, Consumer Behaviour, Brand Loyalty, Purchase Decision, Brand Awareness

INTRODUCTION

In the present business environment, branding has emerged as one of the most powerful tools used by companies to influence consumer behaviour. Branding is not merely about logos or slogans; it represents the overall perception of a product or company in the minds of consumers. A strong brand creates trust, emotional attachment, and perceived value, which significantly affects purchasing decisions.

Consumer behaviour refers to the study of how individuals make decisions to spend their available resources on consumption-related items. It involves understanding the psychological, social, cultural, and personal factors that influence buying decisions. In highly competitive markets, consumers are often faced with multiple brands offering similar features, quality, and price. In such situations, branding becomes the deciding factor.

With the rapid growth of digital marketing and social media, branding has taken new forms and dimensions. Consumers now interact with brands across multiple platforms, shaping their perceptions and attitudes. Therefore, understanding how branding influences consumer behaviour is essential for businesses to design effective marketing strategies and achieve long-term success.

SCOPE OF THE STUDY

The scope of the study is confined to understanding the impact of branding on consumer behaviour with special reference to purchase decisions. The study focuses on selected consumers and examines their awareness, perception, and loyalty towards brands. It also analyses how branding elements such as brand image, trust, and perceived quality influence buying behaviour. The research is limited to a specific geographical area and consumer segment, making the findings relevant primarily within that context.

REVIEW OF LITERATURE

Kotler and Keller (2016) stated that branding helps consumers identify products, reduce purchase risk, and build emotional connections with companies. Strong brands create customer loyalty and command premium pricing.

Aaker (1991) emphasized that brand equity plays a crucial role in influencing consumer preferences and purchase intentions. Brand awareness and perceived quality are key components of brand equity.

Schiffman and Kanuk (2014) explained that consumer behaviour is influenced by psychological factors such as perception, motivation, and attitudes, which are strongly shaped by branding strategies.

Keller (2003) highlighted that brand image and brand associations significantly affect consumer responses and purchase decisions. Positive brand image leads to higher customer satisfaction and loyalty.

Solomon (2018) observed that consumers often use brands as a means of self-expression, and branding influences their identity and lifestyle choices.

OBJECTIVE OF THE STUDY

- To study the concept of branding and consumer behaviour.
- To analyse the level of brand awareness among consumers.
- To examine the impact of branding on consumer purchase decisions.
- To identify factors influencing brand preference.
- To study the relationship between branding and consumer loyalty.

SIGNIFICANCE OF THE STUDY

Branding plays a vital role in influencing consumer behaviour in today's competitive market environment. This study helps to understand how branding elements affect consumer perceptions and decision-making processes. The findings provide valuable insights into consumer preferences and attitudes towards brands.

The study is significant for marketers and business managers as it highlights the importance of building strong brands to influence purchase decisions. Understanding consumer behaviour enables companies to design effective branding strategies that enhance customer satisfaction and loyalty.

Additionally, this study contributes to academic research by providing empirical evidence on the relationship between branding and consumer behaviour. It can serve as a reference for future research and help students and researchers gain a deeper understanding of branding concepts.

STATEMENT OF THE PROBLEM

In the present competitive market, consumers are exposed to numerous brands offering similar products with minimal differences in price and quality. This situation creates confusion

among consumers while making purchase decisions. Branding plays a crucial role in reducing this confusion by differentiating products and influencing consumer perceptions.

Despite heavy investments in branding activities, many companies fail to understand how consumers actually perceive their brands and what factors influence their buying decisions. This lack of understanding results in ineffective marketing strategies and poor brand positioning.

Therefore, the problem addressed in this study is to analyse the influence of branding on consumer behaviour and purchase decisions. The study attempts to identify key branding factors that affect consumer choices and brand loyalty.

LIMITATIONS OF THE STUDY

- The study is limited to a specific geographical area.
- The sample size is limited, which may not represent the entire population.
- The accuracy of the study depends on the responses given by respondents.
- Time constraints restricted deeper analysis.

RESEARCH METHODOLOGY

- **Research Design:** Descriptive and analytical
- **Source of Data:** Primary and secondary data
- **Primary Data:** Collected through structured questionnaire
- **Secondary Data:** Books, journals, websites, and research papers
- **Sampling Method:** Convenience sampling
- **Sample Size:** 100 respondents
- **Statistical Tools Used:** Percentage analysis and Chi-square test

DATA ANALYSIS AND INTERPRETATION

Age-wise Distribution of Respondents

Age Group	No. of Respondents	Percentage
Below 25	35	35
26-35	40	40
Above	25	25

Interpretation:

The majority of respondents belong to the age group of 26–35 years, indicating active purchasing behaviour in this segment.

Awareness of about Branding

Awareness Level	Respondents	Percentage
High	55	55
Moderate	30	30
Low	15	15
Total	**100**	**100**

Interpretation:

Most respondents have a high level of brand awareness, showing the importance branding in consumer decision-making.

Factors Influencing Purchase Decision

Factor	Respondents
Brand Name	40
Price	25
Quality	20
Advertisement	15

Interpretation:

Brand name is the most influential factor in purchase decisions, followed by price and quality.

Brand Loyalty Level

Loyalty Level	Respondents
High	**45**
Medium	**35**
Low	**20**

Interpretation:

A significant number of consumers exhibit high brand loyalty, indicating trust and satisfaction with preferred brands.

CHI-SQUARE ANALYSIS

Relationship between Awareness and Buying Behaviour

Calculated Value	Table Value	Result
12.6	9.49	5%

Interpretation:

Since the calculated value is greater than the table value, the null hypothesis is rejected. This indicates a significant relationship between branding and consumer purchase decision.

NULL HYPOTHESIS

There is no significant relationship between branding and consumer purchase decision.

FINDINGS

- Majority of consumers are brand conscious.
- Branding significantly influences purchase decisions.
- Brand loyalty leads to repeat purchases.
- Brand name is a major factor influencing buying behaviour.
- Effective branding increases consumer trust.

SUGGESTIONS

- Companies should focus on building strong brand identity.
- Brand communication should be consistent across platforms.
- Quality should match brand promises.
- Emotional branding strategies should be adopted.
- Customer feedback should be actively used.
- Digital branding should be strengthened.
- Brand trust should be maintained through transparency.

- Long-term branding strategies should be implemented.

CONCLUSION

Branding plays a vital role in shaping consumer behaviour and influencing purchase decisions. The study reveals that consumers rely heavily on brands while making buying choices, especially in markets with similar products. Strong branding helps companies differentiate themselves and build lasting relationships with customers. Effective branding strategies not only attract new consumers but also retain existing ones, leading to long-term business success.

The research also reveals that brand image and brand loyalty strongly contribute to repeat purchases. Consumers tend to remain loyal to brands that consistently meet their expectations and deliver value. This loyalty reduces the likelihood of brand switching and strengthens long-term relationships between consumers and companies. Effective branding, therefore, not only attracts new customers but also helps retain existing ones.

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CONSUMER PERCEPTION OF GREEN MARKETING IN INDIA: A STUDY ON ECO-FRIENDLY PRODUCTS

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ABSTRACT

This research investigates consumer perceptions of green marketing practices and eco-friendly products in the Indian market. Through a mixed-methods approach involving survey data from 450 respondents across metropolitan and tier-2 cities, the study examines the factors influencing green purchase behaviour, the effectiveness of green marketing strategies, and the gap between environmental consciousness and actual purchasing decisions. Findings reveal that while 78% of Indian consumers express concern about environmental issues, only 34% consistently purchase eco-friendly products. The study identifies price sensitivity, skepticism about green claims, and limited product availability as primary barriers. Trust in certification, brand reputation, and perceived product efficacy emerge as key drivers of green consumption. The research contributes to understanding the unique dynamics of the Indian green market and offers strategic recommendations for businesses seeking to enhance their sustainable product positioning.

KEYWORDS: Green marketing, consumer behaviour, eco-friendly products, sustainability, India, purchase intention, environmental consciousness

INTRODUCTION

The global shift toward sustainable consumption has positioned green marketing as a critical business strategy in the 21st century. As environmental degradation accelerates and climate concerns intensify, consumers worldwide are increasingly evaluating their purchasing decisions through an ecological lens. India, with its population of over 1.4 billion and rapidly growing middle class, represents a significant market for eco-friendly products. However, the Indian consumer landscape presents unique challenges and opportunities that distinguish it from Western markets.

Green marketing encompasses all activities designed to generate and facilitate exchanges intended to satisfy human needs while minimizing detrimental impact on the natural environment. In India, this concept has evolved from a niche concern to a mainstream consideration, driven by factors including rising pollution levels, government initiatives like

the National Action Plan on Climate Change, and increased media coverage of environmental issues.

Despite growing environmental awareness, Indian consumers face a paradox. While surveys consistently show high levels of environmental concern, actual green purchasing behaviour remains relatively low. This attitude-behaviour gap warrants investigation, particularly as businesses invest substantial resources in developing and marketing sustainable products. Understanding what drives or inhibits green consumption in India is essential for both commercial success and broader environmental objectives.

This study aims to bridge the existing research gap by examining the multifaceted relationship between Indian consumers and green marketing initiatives. We investigate not only awareness and attitudes but also the practical factors that influence actual purchasing decisions in the Indian context, where price sensitivity, diverse cultural values, and varying levels of environmental education create a complex marketplace.

LITERATURE REVIEW

Green Marketing Evolution

Banerjee (2023) examined brand reputation as a trust-building mechanism, comparing consumer responses to green products from established mainstream brands versus dedicated eco-brands. The research, involving 540 participants in choice experiments, demonstrated that established brands entering green markets enjoyed 38% higher initial trust levels. However, dedicated eco-brands were judged more harshly when caught in green washing scandals, suggesting that specialized positioning creates higher authenticity expectations.

Mehta and Sharma (2024) investigated the role of promotional strategies in overcoming price barriers. Their field experiment across 45 retail outlets tested various approaches including introductory discounts, loyalty rewards for green purchases, and bundling strategies. Results indicated that loyalty-based incentives proved most effective at building sustained green purchasing habits, while simple discounts attracted one-time buyers without creating lasting behavioral change.

Mohanty and Jena (2025) investigated family life cycle influences on green consumption. Their longitudinal study tracking 500 households revealed that new parents showed dramatic increases in green purchasing, particularly for baby products and household cleaners, driven by child health concerns. However, families with teenagers showed decreased green purchasing as adolescent preferences for mainstream brands and peer-conforming products dominated household choices.

Consumer Behavior Toward Green Products

The Theory of Planned Behaviour, proposed by Ajzen, provides a foundational framework for understanding green purchase intentions. According to this theory, behavioural intentions are influenced by attitudes toward the behaviour, subjective norms, and perceived behavioural control. Studies applying this framework to green consumption have found that positive environmental attitudes often fail to translate into actual purchases due to various barriers.

Research specific to Indian consumers has revealed interesting patterns. Kumar and Ghodeswar (2015) found that Indian consumers demonstrate high environmental concern but low trust in green marketing claims, leading to skepticism that inhibits purchase behaviour. This skepticism often stems from instances of green washing, where companies exaggerate environmental benefits without substantive changes to their practices.

Factors Influencing Green Consumption in India

Several factors shape green purchasing behaviour in the Indian context. Price remains the most significant barrier, with eco-friendly products typically priced 20-40% higher than conventional alternatives. Given that a substantial portion of Indian consumers are price-sensitive, this premium creates a formidable obstacle.

Product availability and convenience also play crucial roles. Eco-friendly products often have limited distribution networks, particularly in smaller cities and rural areas. Consumers who might otherwise purchase green products may not have ready access to them through their usual shopping channels.

Cultural factors uniquely influence Indian consumers. Traditional Indian values emphasize harmony with nature and frugality, which should theoretically support green consumption. However, modernity aspirations and status-driven consumption patterns sometimes override these traditional values, particularly among younger urban consumers.

Research Gap

While considerable research exists on green consumer behaviour in Western contexts, studies focusing specifically on Indian consumers remain limited and often lack depth regarding practical purchasing barriers. Most existing research has focused on attitude measurement rather than examining the complex interplay of factors that bridge or widen the attitude-behavior gap. This study addresses these gaps by investigating both psychological and practical determinants of green consumption in contemporary India

RESEARCH METHODOLOGY

Research Design

This study employs a descriptive research design using a mixed-methods approach. Quantitative data collection through structured surveys provides statistical insights into consumer perceptions, while qualitative elements allow for deeper understanding of motivations and barriers.

Sampling

A purposive sampling technique was used to select 450 respondents from six cities across India, including three metropolitan areas (Mumbai, Delhi, Bangalore) and three tier-2 cities (Jaipur, Kochi, Indore). This distribution ensures geographic diversity and captures variations between highly urbanized and moderately urbanized consumer segments.

The sample consisted of individuals aged 22-55 years with purchasing power and decision-making responsibility for household products. The demographic distribution included 52% male and 48% female respondents, with representation across income brackets and educational backgrounds to ensure sample diversity.

Data Collection

Data collection occurred over a four-month period using both online and offline survey methods. The questionnaire contained 35 items measuring various dimensions: environmental awareness, attitude toward green products, purchase intentions, actual purchase behavior, trust in green claims, perceived barriers, and demographic information.

Questions utilized five-point Likert scales ranging from "strongly disagree" to "strongly agree" for attitudinal measures, and frequency scales for behavioural measures. The instrument was pilot-tested with 40 respondents and refined based on feedback to ensure clarity and cultural appropriateness.

Data Analysis

Quantitative data were analyzed using SPSS software. Statistical techniques included descriptive analysis, correlation analysis to examine relationships between variables, and regression analysis to identify predictors of green purchase behavior. Reliability testing using Cronbach's alpha confirmed internal consistency across measurement scales ($\alpha > 0.75$ for all constructs).

FINDINGS AND ANALYSIS

Environmental Awareness and Concern

The data reveals high levels of environmental awareness among Indian consumers. Approximately 78% of respondents expressed moderate to high concern about environmental issues such as air pollution, plastic waste, and climate change. Urban respondents demonstrated

slightly higher awareness levels (82%) compared to those from tier-2 cities (74%), likely reflecting greater media exposure and educational opportunities in metropolitan areas.

Interestingly, younger consumers (aged 22-35) showed the highest environmental concern at 84%, suggesting generational shifts in environmental consciousness. This cohort also demonstrated greater familiarity with specific environmental concepts such as carbon footprint and sustainable development.

Attitude-Behaviour Gap

Despite high environmental awareness, actual green purchasing behavior lags significantly. Only 34% of respondents reported consistently purchasing eco-friendly products when available, while 48% made occasional green purchases, and 18% rarely or never chose eco-friendly alternatives despite being aware of them.

This substantial attitude-behaviour gap highlights the disconnect between what consumers believe and how they act. Statistical analysis revealed that environmental concern alone explains only 23% of the variance in actual purchase behaviour, indicating that other factors play dominant roles in decision-making.

Key Barriers to Green Consumption

Price Sensitivity: The most frequently cited barrier was higher prices, mentioned by 67% of respondents. Many consumers expressed willingness to pay a premium for genuinely sustainable products, but the acceptable premium ranged only from 5-15% above conventional product prices. Current market premiums often exceed 25%, creating a significant barrier.

Skepticism and Trust Issues: Approximately 58% of respondents expressed skepticism about green marketing claims, with many viewing them as tactics to justify higher prices rather than genuine environmental commitments. Previous experiences with products that failed to deliver promised benefits contributed to this distrust. The absence of standardized certification and regulation in many product categories exacerbates credibility concerns.

Availability and Convenience: Limited availability emerged as a significant constraint, particularly for respondents from tier-2 cities. Around 44% reported difficulty finding eco-friendly alternatives in their regular shopping locations. Even when available, green products often lack the variety that conventional products offer, limiting consumer choice.

Performance Perception: Concerns about product efficacy were reported by 39% of respondents, particularly regarding cleaning products and personal care items. Some consumers questioned whether eco-friendly alternatives could match the performance of conventional products they were accustomed to using.

Drivers of Green Purchase Behaviour

Certification and Labelling: Products with recognized environmental certifications showed significantly higher purchase rates. Respondents demonstrated greater trust in products certified by government agencies or internationally recognized bodies. Clear, understandable labeling about environmental benefits increased purchase likelihood by approximately 31%.

Brand Reputation: Established brands venturing into green products enjoyed higher consumer trust compared to dedicated eco-brands. Approximately 52% of consumers preferred purchasing eco-friendly products from brands they already trusted for conventional products, viewing this as a lower-risk decision.

Personal Health Benefits: Products positioned as beneficial to both environmental and personal health showed the highest adoption rates. For instance, organic food products and natural cosmetics enjoyed greater market success partly because consumers perceived direct personal benefits alongside environmental advantages.

Social Influence: Social factors played a notable role, particularly among younger consumers. Approximately 41% of respondents aged 22-35 indicated that peer behavior and

social media influenced their green purchasing decisions. The desire to align with community values and demonstrate environmental responsibility motivated some purchases.

Product Category Variations

Green consumption patterns varied significantly across product categories. Personal care products and organic food items showed the highest adoption rates (47% and 43% respectively), while eco-friendly cleaning products and sustainable fashion showed lower penetration (28% and 22%).

This variation suggests that consumers prioritize categories with perceived direct health benefits or visible quality differences. Products where environmental benefits seem abstract or distant receive less consistent support despite comparable pricing and availability.

Demographic Influences

Regression analysis revealed several demographic predictors of green purchasing behavior. Education level emerged as a significant predictor, with postgraduate degree holders demonstrating 38% higher green purchase frequency compared to those with undergraduate education alone. Income level showed a positive but moderate relationship, suggesting that while higher income facilitates green purchases, it alone does not guarantee such behavior.

Gender differences were relatively modest, though female respondents showed slightly higher purchase rates for personal care and household products, while male respondents showed higher rates for technology and automotive-related green products.

DISCUSSION

The findings illuminate the complex landscape of green consumerism in India, where high environmental awareness coexists with moderate behavioral follow-through. This paradox reflects not consumer hypocrisy but rather the multiple practical constraints that Indian consumers navigate in their daily purchasing decisions.

The prominence of price sensitivity underscores the economic realities facing Indian consumers. While the middle class is expanding, discretionary spending remains limited for many households. Green products must therefore compete not just on environmental merits but on overall value propositions. Companies that successfully reduce the price premium through economies of scale or innovative business models may capture significant market share.

Skepticism about green claims reflects broader trust deficits in the Indian marketplace, where regulatory enforcement has historically been inconsistent and consumer protection mechanisms remain developing. This finding suggests that the growth of green markets depends partly on improving institutional frameworks, including standardized certification programs and stringent anti-greenwashing regulations. Companies can meanwhile build trust through transparency, third-party verification, and consistent delivery of promised benefits.

The role of personal health benefits in driving green purchases reveals an effective communication strategy. Rather than relying solely on altruistic environmental appeals, marketers might emphasize the direct, tangible benefits consumers and their families receive from eco-friendly choices. This approach aligns environmental and personal interests, creating stronger purchase motivations.

The generational differences observed suggest that green markets may experience organic growth as younger, more environmentally conscious consumers gain greater purchasing power. However, businesses cannot simply wait for this demographic shift. Active efforts to educate consumers, improve product accessibility, and demonstrate value remain essential.

The product category variations indicate that consumers approach green purchasing pragmatically rather than ideologically. They make category-by-category assessments based on perceived benefits, risks, and alternatives. This finding challenges the notion of a uniform "green consumer segment" and suggests that marketing strategies must be tailored to specific product contexts.

IMPLICATIONS AND RECOMMENDATIONS

For Businesses

Companies seeking to succeed in India's green market should consider several strategic approaches. First, aggressive cost management to minimize price premiums is essential. This might involve redesigning products for simpler manufacturing, sourcing materials more efficiently, or accepting lower margins initially to build market share.

Second, building credibility through third-party certifications, transparent communication about sourcing and production practices, and consistent product performance can address trust concerns. Customer education initiatives that explain environmental impacts in accessible terms can also enhance credibility.

Third, expanding distribution networks to ensure green products are as conveniently available as conventional alternatives will reduce a significant barrier. Partnerships with mainstream retailers rather than relying solely on specialty stores can dramatically increase accessibility.

Fourth, positioning strategies should emphasize personal benefits alongside environmental advantages. Marketing messages that connect environmental responsibility to family health, economic savings over time, or social status may prove more persuasive than purely altruistic appeals.

For Policymakers

Government intervention can catalyse green market development. Policies might include tax incentives for sustainable products to reduce price differentials, mandatory certification standards to reduce green washing, and public awareness campaigns to enhance environmental education.

Infrastructure investments in recycling systems, sustainable agriculture, and renewable energy can reduce costs throughout green supply chains, making eco-friendly products more economically viable. Procurement policies favouring sustainable products in government purchasing can also create stable demand that enables scale economies.

CONCLUSION

This research reveals that Indian consumers exist in a state of emerging green consciousness, where environmental awareness is widespread but consistently translated into purchasing behaviour only under favorable conditions. The attitude-behaviour gap reflects not indifference but rather the practical constraints of price sensitivity, trust deficits, and limited accessibility that characterize the Indian market.

For green markets to realize their potential in India, a collaborative approach involving businesses, policymakers, and civil society is necessary. Businesses must prioritize affordability, credibility, and accessibility in their green product strategies. Policymakers must create enabling environments through appropriate regulations, incentives, and infrastructure investments. Consumer education initiatives must continue raising awareness while providing practical guidance for sustainable living.

The findings ultimately suggest cautious optimism about India's green market trajectory. The foundation of environmental concern exists, particularly among younger consumers. As incomes rise, products improve, trust builds, and availability expands, the attitude-behavior gap may gradually narrow. However, this progression is not inevitable; it requires sustained effort from all stakeholders to transform environmental awareness into widespread sustainable consumption patterns.

India's journey toward green consumerism will likely differ from paths taken by developed nations, shaped by unique economic realities, cultural values, and institutional contexts. Understanding and respecting these specificities is essential for anyone seeking to promote or profit from sustainable consumption in this dynamic and significant market.

FUTURE RESEARCH

This study opens several avenues for further investigation. Longitudinal research tracking how consumer attitudes and behaviors evolve over time would provide valuable insights into market maturation. Studies examining specific product categories in depth could reveal category-specific drivers and barriers that this broad study could not fully explore. Research investigating the role of digital platforms and social media in shaping green consumption in India would be particularly timely given the rapid growth of e-commerce and social connectivity. Finally, comparative studies examining green consumption across different emerging economies could identify whether findings from India generalize to similar markets or reflect unique cultural and economic conditions.

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A STUDY ON CUSTOMER SATISFACTION TOWARDS HIMALAYAN PRODUCTS WITH SPECIAL REFERNCE TO TIRUCHIRAPPALLI

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ABSTRACT

Himalayan is a worldwide pioneer in the field of scientifi-cally validated herbal healthcare. Its reputation is for clini-cally studied, pure, and safe herbal healthcare products that are based on extensive scientific validation and strin-gent quality controls. we believe that there nur-turing work environment brings out the best in their team and allows Himalaya to develop the best products.

KEY WORDS: customer satisfaction, herbal, Ayurvedic products

INTRODUCTION

Customer satisfaction is a key factor in formulation of customer's desires for future purchase. Although satisfaction has been defined as the differences between expectation and performance, but there are differences between quality and satisfaction. Ayurveda or the science of life was an ancient, holistic system for diagnosis and treatment, perhaps like the oldest system of medicine known to the humanity.At Himalaya, they have pioneered the use of modern science to rediscover and validate Ayurveda"s secrets. They employ cutting edge research to create pharmaceutical-grade. Ayurvedic products. Natural, effective and safe, these products have helped thousands of people live healthier, richer lives. Their focus was on wellness on helping people get healthy and stay healthy Himalaya is the present portfolio of pharmaceuticals, personal care, baby care, well-being and animal health products; Himalaya has evolved into a 'head-to-heel' herbal wellness company. To observe how Hima- laya's most important asset and investing in them is vital to Himalaya. From giving them the creative freedom to push the boundaries of research to fostering a culture of open communication and diversity, Each and every Himalaya employee is unique and contributes to the success of the organization.Pioneering research by Himalaya's Research center has converted Ayurveda's herbal tradition into a complete range of proprietary formulations dedicated to healthy liv-ing and longevity. Today, worldwide, the Himalaya brand is synonymous with safe and efficacious herbal healthcare. Science and research lie at the heart of product develop- ment at Himalaya..

STATEMENT OF THE PROBLEM

A study of this kind will facilitate in understanding the consumption pattern and

customer satisfaction on dairy milk chocolate. Hence, the present study entitled, "A Study on Customer satisfaction towards Himalaya with reference to Tiruchirappalli" was undertaken.

OBJECTIVE FOR STUDY

- To study the source of awareness about the Himalayan products.
- To study the reason for selecting the particular brand.
- To study the factor influencing the consumer to use the Himalayan products.
- To know the consumer satisfaction towards Himalayan Products.
- To study the Socio-economic factors affecting the consumer satisfaction of Himalayan products.
- To identify the problems faced by the respondents while using Himalayan products.

LIMITATIONS OF THE STUDY

1. Samples size is small and might not represent the whole population.
2. The study is only within the Tiruchirappalli.
3. Data today depend upon respondent's view, which could be bias in nature.
4. Some of the respondent's hesitated to answer truly and frankly.
5. The attitude of the customers is bound to change for time to time, the result of this study may not be universal.

SCOPE OF THE STUDY

As learning is a human activity and is as natural, as breathing. Despite of the fact that learning is all pervasive in our lives, psychologists do not agree on how learning takes place. How individuals learn is a matter of interest to marketers. They want to teach consumers in their roles as their roles as consumers. They want consumers to learn about their products, product attributes, potential consumers benefit, how to use, maintain or even dispose of the product and new ways of behaving that will satisfy not only the consumer's needs, but the marketer's objectives. The scope of my study restricts itself to the analysis of consumer preferences, perception and consumption of Himalaya products.

RESEARCH METHODOLOGY RESEARCH DESIGN

The descriptive study typically concern with determining the frequency of something occurs or how two variables vary together. Descriptive research design was adopted to study the factors that influence the level of satisfaction of Himalaya product consumers.

Source of Data

The information relevant for the study was drawn from secondary data, which alone was not sufficient. Primary data was collected through survey method using questionnaire to conduct the study successfully. A questionnaire was designed for this purpose.

Primary Data:

The primary data was collected from a sample consisting of 100 Consumers selected from population through Simple Random Sampling method. Here the researcher has prepared different schedules for collecting the primary data. The data were compiled tabulated and analyzed separately.

Secondary Data:

The secondary data on production and consumption of milk were collected from various issues of Economic Survey, Ministry of Finance.

Sampling Technique

In this study the researcher used convenience sampling. The sample was selected according to the convenience of the researcher.

Area of the Study

As the population of Himalaya product consumer is infinite and very large, it is decided to take samples to represent the population which is confined within Tiruchirappalli.

Tools for Analysis

- Percentage analysis
- Chi-square
- Rank Correlation
- Weighted Average

REVIEW OF LITERATURE

Mahaboob Basha (2020) This article highlights "A Study on Consumer Behaviour towards Fmcg Goods An Empirical Study with Special Reference to Nellore District of Andhra Pradesh. The author finds that creating awareness regarding products is essential to grabthe market in the competitive world. The researcher evaluates that when customer satisfied the purchasing level of the customer would gradually increase by that the sales of the company will increase. Here in this research work researcher is trying to find out differences in the opinion of consumers on the basis of Age, educational qualification, location and gender regarding consumer behaviour towards fast moving consumer goods in Nellore District of Andhra Pradesh.

Ganesh (2019) In his article titled Consumers' Perception towards Brand Loyalty of FMCG Products The author analysed that the consumers' perception towards +brand loyalty of the FMCG product is awareness, knowledge, attitude of the brand, risk aversion to change the brand, satisfaction and brand trust of the consumers, variables namely brand, image, product quality, product knowledge, product involvement, products attributes and brand loyalty of consumers.

Singh and Sharma (2019) analyzed the customers' perception towards brands of cosmetic products. The study used exploratory-cum-descriptive research design. It was used judgment sampling to select female respondents from the Hisar city of the Haryana State. The study found that Majority of the customers used the major cosmetics like shampoo, powder, cream. Lakme is the top brand of cosmetic which are preferred by customers.

Vibhuti, et.al (2019) In their article titled "A study on Consumer Buying Behavior towards Selected FMCG Products" The consumer behaviour plays an important role in marketing of fast moving consumer goods. The authors highlighted that the present era of globalisation needs and wants of consumers changes with time. The fast moving consumer goods (FMCG) sector contributes a lot to the growth of India's GDP. Therefore it is necessary to identify the changes in consumer buying behaviour towards FMCG products. The study reveals examines the factors affecting consumer buying behaviour towards FMCG products and finally effecting their decision making process. The study found that consumer behaviour is largely effected by place, product, price, promotion, physiological and psychological factors. However effect of these factors also differ from product to product.

Thanigachalam (2019) In his article highlights "the consumer behaviour towards fast moving consumer goods in Puducherry." The importance promotional offers, availability of brands are important that companies must give it sufficient consideration before they plan and implement their marketing strategies. The FMCGs sector is a very dynamic sector in India. A major goal is to satisfy the needs and wants of consumer and their target markets more effectively and efficiently.

Thanisorn and Byaporn (2018) investigated the factors that influence perception of Thai consumers on facial herbal cosmetic products in Thailand. They revealed that most of the interviewees were female with age between 26-30 years, casual worker, bachelor degree being the highest education and salary from 10,000 -15,000 baht ($285-430) per month. The marketing mix (4Ps: product, price, place and promotion) were the key factors influencing Thai consumers' perception on facial herbal cosmetic products. The result found that Thai consumers were satisfied with physical appearance of products; texture, odor, penetration characteristic and viscosity. Thai consumers trust in the safety of the Thai and imported

products. The imported products have new manufacturing technologies of production compare with the Thai products but imported products are more expensive than Thai products. Thai consumers were satisfied with packaging design and pump bottle shape of imported products. The imported products had more interesting marketing promotion than the Thai products. The marketing promotions are new product premium, promotion campaign eg. Cash discount, gift premium, fortune, tarot horoscope, makes up and massage workshop.

Eze et al. (2018) examined the influence of brand image, product knowledge, product quality, and price promotion on consumers' purchase intention for cosmetic products. They used a survey questionnaire to collect 204 responses from Generation Y female consumers in Malacca, Malaysia. Data collected were analyzed using multiple linear regression. The findings revealed that product image, product knowledge and brand image emerged with a significant influence on intention to purchase cosmetics. However, price promotion was not significant. Sarfaraz and Pratik (2018) examined the consumer's perception towards the private label and feeling associated with the purchase of private label brand with special focus on Anand and Vadodara region. The study aimed to uncover current consumer perceptions and attitudes towards, private label brands in the FMCG sector. The results of the study indicated that the private label brands can be positioned as premium quality products with price levels ranging from marginally below to the prices of category-leading manufacturer brands. On the other hand, retailers can position their private label brands based on pure value for money. This equates to average quality products at very affordable prices. Unfortunately, private label brand packaging was considered, for the most part, to be unattractive and failed to convey a sense of high product quality. A key limitation of this study was the sampling frame.

DATA ANALYSIS AND INTERPRTATION

Simple Percentage Analysis

Reason to Select Himalaya Products

S.No	Reason to select Himalaya products	Number of Respondents	Percentage (%)
1	Performance	29	29
2	Quality	32	32
3	Low price	20	20
4	Availability	19	19
	Total	**100**	**100**

Calculation:

$$\text{Percentage} = \frac{\text{Number of Respondents}}{\text{Total Number of Respondents}} * 100$$

$$= 29/100*100$$

$$= 29\%$$

Interpretation

The above table shows 29% of the respondents to select himalaya product was performance, 32% of the respondents to select himalaya product was quality, 20% of the respondents to select himalaya product was low price and 19% of the respondents to select himalaya product was availability.

Age

S.no	Age	Number of respondents	Percentage (%)
1	Below 20	44	21
2	20 to 30	11	11
3	30 to 40	24	24

4	Above 40	21	44
	Total	**100**	**100**

Interpretation

The above table shows 44% of the respondents age is below 20, 11% of the respondents age is 20 to 30, 24% of the respondents age is 30 to 40 and 21% of the respondents age is above 40.

Family Size of the Respondents

S.No	Family size of the respondents	Number of respondents	Percentage (%)
1	Upto 3	18	18
2	4 To 6	27	27
3	6 To 8	44	44
4	Above 8	11	11
	Total	**100**	**100**

Interpretation

The above table shows 18% of the respondents family size is upto 3, 27% of the respondents family size is 4 to 6, 44% of the respondents family size is 6 to 8 and 11% of the respondents family size is above 8.

Chi-Square Analysis

Opinion of the Customer About the Himalayan Product Types and Its Rating

Null Hypothesis (Ho)

There is no significant relationship between himalaya product types and its rating.

Alternative Hypothesis (Ha)

There is significant relationship between himalaya product types and its rating.

Rating / Products	Best in class	Good	Moderate	Bad	Total
Face wash	10	2	3	0	15
Hair cream	5	2	16	0	23
Tooth paste	10	3	12	0	25
Soap	7	2	13	0	22
Baby products, medicines, herbal products	5	1	9	0	15
Total	37	10	53	0	100

Chi-Square Tests

	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	10.465	12	.234

Interpretation:

From the above analysis, the chi-square value is 10.465, and asymptotic significant value is above .04. Hence, there is no evidence to reject the null hypothesis. Thus we conclude that there is significant relationship between himalaya product types and its rating.

Ranking Analysis

Ranking Analysis of Varioius Himalayan Products According to Convenience

FACTORS	I	II	III	IV	V	Total Score	Mean	Rank
Soap	12 (60)	38 (152)	45 (135)	20 (40)	19 (19)	406	58.00	2
Baby products	39 (195)	41 (164)	12 (36)	43 (86)	23 (23)	504	72.00	1
Tooth Paste	16 (80)	8 (32)	17 (51)	12 (24)	30 (30)	217	31.00	4
Face wash	33 (165)	13 (52)	26 (78)	25 (50)	28 (28)	373	53.29	3

Source: Primary Data INTERPRETATION

From the above ranking analysis Baby products ranks 1, Soap ranks 2, Face wash ranks 3 and Tooth Paste ranks 4.

Weighted Average Analysis

Satisfaction Level As Being A Himalayan Product Customer

PARAMETERS	Strongly Agree	Agree	Neutral	Disagree	Mean score	Mean	Rank
Gifts	60	296	42	0	398	26.53	1
Quality	95	192	60	26	373	24.87	4
Quantity	135	180	30	36	381	25.40	3
Availability	100	40	186	16	342	22.80	5
Discounts	140	148	81	16	385	25.67	2

Interpretation

The above table result it is found that Gifts ranks 1, Discounts ranks 2, Quantity ranks 3, Quality ranks 4 and Availability ranks 5.

FINDINGS

- Mostly 44% of the respondents age is below 20.
- Majority 69% of the respondents were male.
- Mostly 42% of the respondents annual income is Rs: 120000 to Rs:300000.
- Mostly 30% of the respondents educational qualification is professional.
- Majority 56% of the respondents marital status is unmarried.
- Mostly 43% of the respondents were self employee and 35% of the respondents were professional.

- Mostly 44% of the respondents family size is 6 to 8.
- Mostly 32% of the respondents to select himalaya product was quality.
- Mostly 42% of the respondents duration of the usage was below 3 years.
- Mostly 41% of the respondents satisfaction level is satisfied.
- Majority 47% of the respondents ready to recommend others.
- Mostly 29% of the respondents most dealing products is face wash.
- Mostly 33% of the respondents high selling product is face wash.
- Mostly 42% of the respondents company rating is best in class.
- Mostly 44% of the respondents rate product efficiency is good.
- Mostly 28% of the respondents say advertisements.
- Majority 53% of the respondents say no.
- Mostly 49% of the respondents says newspaper.
- Mostly 44% of the respondents says 1.
- Mostly 43% of the respondents usage are 4 and more.
- Majority of 57% of the respondents said very expensive.
- There is significant relationship between himalaya product types and its rating.
- From the above ranking result Baby products ranks 1.

SUGGESTIONS

- The price of the Himalaya Ayurvedic products may be reduced to create moredemand.
- Making awareness of Himalaya Ayurvedic products is fully herbal, sample pouches can be given to the public and it may help in increasing the products popularity and it may also promote its sales.
- The company has to participate in exhibitions and trade fairs to attract more consumers yet.
- Try to cover small towns and villages to attract the new customers.
- The company has to focus on advertisement in the existing position to get more attention on consumers.
- Advertisements to be required for Himalaya products
- Most of the respondents feel the Himalaya products price is very high. So the company can reduce the price.
- Demonstration of Himalaya products may be improved.
- Some of the respondents feel door delivery is the best promotional measures. So the company can concentrate by the above factor.
- The company provides more discount for their product. This should be increasing the customer the company can provide more discount for their product.
- Quantity of the Himalaya product to be increased with the prevailing price rate.
- Retail selling is required to increasing the sales.

CONCLUSION

The study reveals that most of the respondents are aware of the Himalaya products. Now people are not considering the cosmetics as luxury hence there is a need to advertise more to create awareness and use of Himalaya products. The present study reveals that the customers have a good preference towards Himalaya product. The popularity of the brand also one of the factors urged the customer for their purchase duration. In overall the customer are satisfied with the brand, availability and price of the Himalaya products. The company must attract its consumers by providing many free gifts related to their products to maintain long run market. If the above suggestions are implemented, the company will research a highest target in the near future.

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IMPACT OF MOBILE MARKETING ON CONSUMER BUYING BEHAVIOUR IN TIRUCHIRAPPALLI TOWN

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ABSTRACT

The rapid growth of mobile technology has significantly transformed the marketing landscape, making mobile marketing a powerful tool for businesses to directly reach consumers through smartphones and other mobile devices. This study examines the impact of mobile marketing on consumer buying behaviour in Tiruchirappalli Town by analysing mobile marketing techniques such as SMS advertising, social media promotions, mobile applications, push notifications, and online shopping platforms. The study is based on both primary and secondary data, with primary data collected through a structured questionnaire from consumers in Tiruchirappalli and secondary data sourced from journals, research articles, books, and online sources. Descriptive statistical tools such as mean, median and standard deviation were used to summarize and understand consumer responses, while inferential analysis using the Chi-square test was applied to examine the association between mobile marketing channels and consumer buying behaviour. The findings reveal that mobile marketing significantly influences consumer awareness, interest, and purchasing decisions, concluding that mobile marketing is an effective and efficient marketing strategy for businesses operating in urban and semi-urban areas.

KEYWORDS: Mobile Marketing, Consumer Behavior, Digital Marketing, Mobile Advertising, Online Shopping,

INTRODUCTION

Marketing plays a vital role in the success of any business by identifying customer needs and fulfilling them effectively. With rapid advancements in digital technology, traditional marketing methods are increasingly being replaced by modern digital marketing techniques. Among these, mobile marketing has emerged as one of the most significant developments, using mobile devices as a powerful medium for communication, promotion, and customer engagement. The widespread adoption of smartphones and affordable internet services has made mobile marketing an essential strategy for businesses to reach consumers quickly and efficiently.

Mobile Marketing

Mobile marketing includes promotional activities carried out through mobile phones such as SMS advertisements, mobile applications, social media platforms, mobile websites, in-app advertisements, push notifications, and QR codes. These tools enable businesses to provide instant, personalized, and location-based messages to consumers, thereby increasing brand awareness and customer interaction. In India, smartphone usage has grown rapidly not only in metropolitan cities but also in tier-2 cities like Tiruchirappalli. Consumers extensively use mobile phones for communication, entertainment, product searches, online shopping, and digital payments, encouraging businesses to increasingly rely on mobile-based marketing strategies.

Consumer Behaviour

Consumer buying behaviour refers to the decision-making process individuals follow while purchasing goods and services, including need recognition, information search, and evaluation of alternatives, purchase decisions, and post-purchase evaluation. Mobile marketing significantly influences consumer behaviour by offering easy access to product information, attractive promotions, personalized offers, instant notifications, and convenient purchasing options. These features simplify the buying process and strongly impact consumer preferences and purchasing decisions.

Digital Marketing

Digital marketing, which includes mobile marketing, social media marketing, search engine marketing, and online advertising, allows businesses to interact directly with consumers and measure marketing performance in real time. Compared to traditional marketing, digital marketing is cost-effective, flexible, and provides wider market reach. Mobile advertising, as a major component of digital marketing, delivers targeted advertisements through SMS, social media, video ads, and mobile applications, making it highly effective in influencing purchase intentions.

Online Shopping

Online shopping has further transformed consumer buying behaviour by providing convenience, time savings, product variety, price comparisons, customer reviews, and easy payment options. As a result, consumers increasingly depend on mobile devices for shopping decisions. This study focuses on understanding the impact of mobile marketing on consumer buying behaviour in Tiruchirappalli Town, highlighting the growing importance of mobile marketing in urban and semi-urban markets.

REVIEW OF LITERATURE

Shankar and Balasubramanian (2009) found that mobile advertising has a positive influence on consumer decision-making processes. Their study revealed that timely and relevant information delivered through mobile devices assists consumers in evaluating products effectively. Mobile marketing thus supports informed purchasing decisions. The researchers emphasized the importance of context-based messaging.

Vernal and Toker (2010) observed that consumers show favorable responses to mobile marketing when messages are informative, entertaining, and permission-based. The study indicated that non-intrusive communication increases consumer acceptance. Permission-based mobile marketing builds trust among consumers. Hence, content quality plays a vital role in effectiveness.

Kaplan (2012) explained that mobile marketing facilitates personalized and interactive communication between businesses and consumers. This form of direct communication increases consumer engagement and helps firms build stronger relationships with customers. As a result, customer satisfaction levels improve significantly. The study highlights personalization as a key strength of mobile marketing.

Kumar and Gupta (2016) and **Singh and Pandey (2018)** examined mobile marketing in the Indian context. Kumar and Gupta concluded that mobile and social media marketing

strongly influence brand awareness and buying behavior, particularly among youth. Singh and Pandey identified that mobile promotions and discount notifications stimulate impulse buying behavior. Overall, these studies confirm that mobile marketing significantly influences consumer attitudes and purchase decisions.

OBJECTIVES OF THE STUDY

The main objectives of the study are:

1. To understand the concept of mobile marketing
2. To analyze consumer awareness of mobile marketing in Tiruchirappalli City
3. To study the impact of mobile marketing on consumer buying behavior

RESEARCH METHODOLOGY

Research methodology refers to the systematic process used to collect and analyze data for the study.

Research Design

The study follows a descriptive research design to analyze the impact of mobile marketing on consumer buying behavior.

Sources of Data

- **Primary Data:** Primary Data Collected through a structured questionnaire from consumers in Tiruchirappalli City
- **Secondary Data:** Secondary Data Collected from journals, books, websites, research articles, and reports

Sampling Method

- Sampling Technique: Convenience sampling
- Sample Size: 100 respondents
- Area of Study: Tiruchirappalli City Town

Tools for Data Analysis

- Percentage analysis
- Chi- Square
- Mean Median Standard Deviation

SCOPE OF THE STUDY

The scope of the study is limited to consumers residing in Tiruchirappalli City Town. The study focuses only on mobile marketing and its impact on buying behavior. It helps businesses understand consumer preferences and responses toward mobile marketing strategies. The study is useful for marketers, retailers, and researchers interested in mobile marketing trends.

RESEARCH GAP

Earlier studies on mobile marketing have focused mainly on big cities. Very few studies have been conducted in semi-urban cities like Tiruchirappalli. Moreover, limited attention has been given to new mobile marketing tools such as social media advertisements and mobile applications in these areas. Consumer behavior in semi-urban regions may be different from that in metropolitan cities. Hence, there is a need to study how mobile marketing influences consumer buying behavior in semi-urban areas.

STATEMENT OF THE PROBLEM

With the increasing use of mobile marketing, businesses are investing heavily in digital promotions. However, there is limited understanding of how mobile marketing influences consumer buying behavior in Tiruchirappalli City Town. The problem addressed in this study is to analyze whether mobile marketing actually affects consumer purchase decisions and to what extent it influences buying behavior.

ANALYSIS AND INTERPRETATION OF DATA

Respondents personal Details in Tiruchirappalli Town

Age of the respondents

Age	No. of Respondents	Percentage
15-20	12	16.0
21-25	46	61.3
26-30	10	13.3
31 and above	7	9.3
Total	75	100.0

Source: Primary data

The table indicates that the majority of respondents (61.3%) belong to the age group of 21–25 years.

This shows that the study is largely influenced by young adults, with fewer respondents from higher age groups.

Gender of the respondents

Gender	No. of Respondents	Percentage
Male	16	21.3
Female	59	78.7
Total	75	100.0

Source: Primary data

The table shows that female respondents constitute the majority of the sample with 78.7%,

This indicates that the study findings are largely influenced by female respondents' views.

Education qualification

Educational Qualification	No. of Respondents	Percentage
School level	5	6.7
Diploma	3	4.0
UG degree	19	25.3
PG degree	48	64.0
Total	75	100.0

Source: Primary data

The table reveals that the majority of respondents are highly educated, with 64.0% holding a postgraduate degree and 25.3% having an undergraduate degree.

This indicates that the study sample largely consists of respondents with higher educational qualifications.

Monthly income

Monthly Income	Respondents	Percentage
Below 10,000	36	48.0
10,001-20,000	12	16.0
20,001-30,000	10	13.3
30,001-50,000	17	22.7
Total	75	100.0

Source: Primary data

The above table shows that nearly half of the respondents (48.0%) earn a monthly income below ₹10,000.

This indicates that the study sample is largely composed of low-income respondents, with fewer participants in higher income groups.

Chi-Square Test
Mobile channels
Test Statistics

	The Overall Consumer Buying Behaviors
Chi-Square	52.880[a]
Df	2
Asymp. Sig.	.000

The Chi-square test result ($\chi^2 = 52.880$, df = 2, p = 0.000) indicates that the result is statistically significant at the 5% level. Since the significance value is less than 0.05, the null hypothesis is rejected.

This shows that there is a significant relationship between mobile marketing channels and overall consumer buying behaviour.

Mean Median Standard Deviation
Usage of Digital Marketing Channels Usages

Digital Marketing Channels Usage	Mean	N	Std. Deviation
Social media Amazon	1.59	17	1.064
Mobile apps Flipkart	1.33	21	.483
SMS WhatsApp Meesho	2.22	32	1.263
YouTube Myntra	2.60	5	1.517
Total	**1.85**	**75**	**1.135**

The table shows that WhatsApp Meesho (N=32) and Flipkart (N=21) are the most commonly used shopping apps among respondents, indicating a strong preference for mobile and social commerce platforms.

Amazon (N=17) also has significant usage, while Myntra via YouTube (N=5) is the least used app.

Overall, the mean value (1.85) indicates that mobile-based shopping apps play an important role in influencing consumer buying behaviour.

FINDINGS

- The majority of respondents (61.3%) belong to the age group of 21–25 years, indicating that young adults are the primary users of mobile marketing platforms in Tiruchirappalli Town.
- Female respondents constitute a higher proportion (78.7%) of the sample, showing greater engagement of women with mobile marketing and online shopping platforms.
- Most respondents are well educated, with 64.0% holding postgraduate degrees, suggesting that higher education influences awareness and usage of mobile marketing tools.
- Nearly half of the respondents (48.0%) earn below ₹10,000 per month, indicating that even low-income groups actively use mobile-based marketing and shopping applications.
- WhatsApp, Meesho, Flipkart, and Amazon are the most commonly used mobile shopping platforms, highlighting the strong role of mobile apps and social commerce in purchase decisions.
- The Chi-square test confirms a significant relationship between mobile marketing channels and consumer buying behavior, proving that mobile marketing has a strong influence on purchase decisions.

SUGGESTIONS

- Businesses should focus more on social media platforms and mobile applications, as they are widely used by consumers in Tiruchirappalli Town.
- Marketers should design simple, attractive, and informative mobile advertisements, especially targeting young adults and female consumers.
- Personalized offers, discount notifications, and push messages should be used carefully to avoid consumer irritation and message overload.
- Since many respondents belong to low-income groups, businesses should introduce affordable pricing, discounts, and cashback offers through mobile platforms.
- Companies should improve trust, data privacy, and transparency in mobile marketing to enhance long-term customer relationships.

CONCLUSION

Mobile marketing has emerged as a powerful and effective tool influencing consumer buying behavior in Tiruchirappalli Town. The study clearly reveals that mobile marketing channels such as social media promotions, mobile applications, SMS alerts, and online shopping platforms significantly affect consumer awareness, interest, and purchase decisions. The statistical analysis confirms a strong relationship between mobile marketing and consumer buying behavior. With increasing smartphone usage in semi-urban areas, mobile marketing provides businesses with greater opportunities to reach and engage consumers efficiently. Therefore, businesses operating in urban and semi-urban regions should adopt well-planned mobile marketing strategies to improve customer engagement and achieve sustainable growth.

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A STUDY ON E-COMMERCE AND ITS IMPACT ON SMALL RETAIL SELLERS' GROWTH AND SUSTAINABILITY

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ABSTRACT

The rapid growth of retail e-commerce has significantly transformed the retail landscape, presenting both opportunities and challenges for small retail sellers. While online platforms enable small businesses to reach a broader customer base and increase sales potential, they also introduce intense competition, pricing pressures, and operational complexities. This study investigates the impact of retail e-commerce on small retail sellers, focusing on changes in sales, profit margins, customer engagement, and business sustainability. Using primary data collected through surveys and interviews, coupled with secondary industry reports, the research highlights the key challenges faced by small retailers in adapting to digital marketplaces. The findings suggest that strategic adoption of e-commerce tools, digital marketing, and collaborative platforms can help small retailers remain competitive and sustain growth in a digital economy.

KEYWORDS: Retail E-Commerce, Small Retailers, Online Marketplaces, Digital Adaptation, Business Sustainability, Sales Performance, Competitive Challenges

INTRODUCTION

Retail e-commerce has become a transformative force in the global marketplace. With the rise of digital technologies and widespread internet access, consumers increasingly prefer online shopping due to convenience, variety, and competitive pricing. This shift has affected traditional small retail sellers who rely heavily on local footfall and personalized customer service. While e-commerce opens up opportunities for small retailers to expand their reach beyond local boundaries, it also brings challenges such as increased competition, price wars, and the need to adapt to digital platforms. Over the past decade, retail e-commerce has emerged as a powerful driver reshaping the retail landscape across the world and India is no exception. Today, India is among the global leaders in online retail adoption, thanks to a mix of factors: widespread smartphone penetration, expanding internet connectivity, evolving consumer behavior, and rapidly improving digital payment and logistics infrastructure. According to a 2025 industry overview, India's e-commerce market (all-India) is estimated to be worth about ₹13,04,703 crores (~US$ 151 billion) in 2025. The same source forecasts further growth to

around ₹15,71,793 crores (~US$ 182 billion) by 2026. As of 2025, many analysts expect annual growth for e-retail in India to continue at roughly 18% per year over the coming years.

LITERATURE REVIEW

Jyotirmoy Koley (2025) The study employs a mixed-methods approach (survey + interviews) of 75 retailers across different sectors in Darjeeling (West Bengal). It investigates factors influencing adoption of e-commerce among retailers and evaluates business performance post-adoption. Major drivers identified include fast/reliable delivery, efficient settlement processes, user-friendly applications, and competitive pricing. Among respondents, 93.4% reported a positive effect on business performance — especially in expanding customer base and increasing profit margins. Hypothesis tests show a significant association between adoption factors and business impact. The study concludes that e-commerce adoption has strong potential to improve retail business performance for small/local retailers in semi-urban / regional areas — provided operational excellence, good user-experience (apps, digital processes), and competitive pricing are maintained. It recommends that retailers and policymakers encourage e-commerce adoption, and invest in digital infrastructure, settlements, user-friendly platforms, and marketing.

Bain & Company / Industry Report (2025) According to the 2025 report, India's e-retail market GMV is ≈ US$ 60 billion, with the country hosting the world's second-largest online shopper base. The report notes that although overall consumption growth has slowed (post-pandemic, inflationary pressures), long-term fundamentals remain strong. E-retail is projected to grow at ~18% annually over the next several years, potentially reaching US$ 170–190 billion by 2030.

JETIR — M. Akhila & Shaheraz Khan (2025) "Rise of Quick Commerce and Its Impact on Traditional Retailers" This study surveys 138 respondents (both consumers and traditional retailers, especially small kirana stores) to examine how the rapid expansion of Q-commerce (ultrafast delivery via platforms like Blinkit, Zepto, Swiggy Instamart) is influencing shopping preferences, retailer business, and adaptation strategies. The research highlights a strong preference among young consumers for convenience and speed, and notes that many traditional retailers are considering or adopting hybrid models (offline + digital) to stay relevant.

Shiva Kumar B & Mujammil Pasha (2024) The paper examines how the growth of e-commerce affects local retail businesses in a semi-urban district (Chitradurga). It explores adaptation by local merchants to online platforms, barriers to digital adoption, changes in consumer preferences, and the emergence of hybrid retail models (offline + online) among small traders. The study finds that although e-commerce penetration is increasing, small retailers face challenges including limited digital literacy, logistical issues, and resource constraints, which can hinder digital transition. It argues that sustainable competition requires integrating offline strengths (local presence, relationships) with online convenience.

SIGNIFICANCE OF THE STUDY

Understanding the impact of e-commerce on small retail sellers is critical for policymakers, entrepreneurs, and business strategists. This study provides insights into how small retailers can navigate digital marketplaces while identifying the challenges they face. It also helps in proposing strategies to improve competitiveness and sustainability in a digital economy.

SCOPE OF THE STUDY

The study focuses on small retail sellers within urban and semi-urban regions, analysing their adaptation to online marketplaces. It examines sales trends, profit margins, customer reach, and operational challenges in the context of growing retail e-commerce.

STATEMENT OF THE PROBLEM

Small retail sellers are experiencing both opportunities and threats due to the rapid growth of e-commerce. While online platforms offer access to a broader customer base, small retailers often face difficulties competing with larger e-commerce giants. This study addresses the problem of understanding how e-commerce affects the sustainability, sales, and operational efficiency of small retailers, highlighting the challenges in digital adaptation.

OBJECTIVES OF THE STUDY

- To analyze the impact of retail e-commerce on small retail sellers and provide recommendations for sustainable growth.
- To study changes in sales and profit margins due to e-commerce.
- To evaluate customer engagement trends in small retail businesses.
- To identify challenges small retailers, face in adopting e-commerce platforms.
- To suggest strategies for small retailers to enhance competitiveness in digital marketplaces.

RESEARCH DESIGN: DESCRIPTIVE RESEARCH

Research Design
The study adopts a descriptive and analytical research design.

Sources of Data
Primary Data: Collected through a structured questionnaire
Secondary Data: Journals, books, reports, and websites

Sample Size
The sample size for the study is 120 small retail sellers.

Sampling Technique
Convenience sampling method was used.

Tools for Analysis
- Percentage analysis
- Chi-square test

DATA ANALYSIS AND INTERPRETATION

Table 1
Demographic Profile of the Respondents

Profile	Category	No. of Respondents	Percentage (%)
Gender	Male	72	60.00
	Female	48	40.00
Age Group (Years)	Below 25	18	15.00
	25-35	42	35.00
	36-45	36	30.00
	Above 45	24	20.00
Educational Qualification	Up to Higher Secondary	30	25.00
	Graduate	56	46.67
	Post Graduate	34	28.33
Type of Retail Business	Grocery	38	31.67
	Clothing	26	21.67
	Electronics	22	18.33
	Others	34	28.33
Years of Business Experience	Below 5 Years	28	23.33
	5-10 Years	44	36.67
	Above 10 years	48	40.00
Monthly Income (₹)	Below 20000	32	26.67
	20000 - 40000	54	45.00
	Above 40000	34	28.33

 Source: Primary Data
Interpretation

From the Table No. 1 it is observed that majority of respondents are male, aged 25–35, with a graduate qualification, operating grocery businesses, having more than 10 years of experience, and earning a monthly income of ₹20,000–₹40,000. This indicates that the core group of small retail sellers in the study is experienced, moderately educated, and financially moderate, forming the backbone of local retail in the sample area.

Table 2
E-Commerce Awareness and Usage

Particulars	Yes	No	Total
Awareness about e-commerce platforms	95	25	120
Selling through online platforms	40	80	120
Digital Payment Adoption	70	50	120

Source: Primary Data
Inference: Majority are aware of e-commerce, but only a few sell online. Digital payments are moderately adopted.

Table 3
Impact of E-Commerce on Sales Performance

Impact Level	Sales Decreased	Sales Unchanged	Sales Increased	Total
High Impact	40	10	5	55
Moderate Impact	20	15	10	45
Low Impact	5	10	5	20
Total	65	35	20	120

Source: Primary Data
Inference: High e-commerce impact correlates with higher sales decrease.

Impact of E-Commerce on Sales Performance
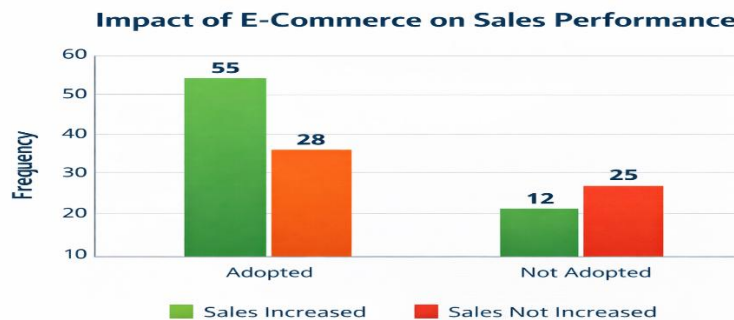
Table 4
Challenges Faced by Small Retail Sellers

Challenge	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Price Competition	40	35	20	15	10
Reduced Customer Footfall	50	30	20	10	10
Technological Barriers	35	25	25	20	15
Logistical Constraints	30	25	30	20	15

Source: Primary Data
Inference: Price competition and reduced footfall are the biggest challenges.

Challenges Faced by Small Retailers
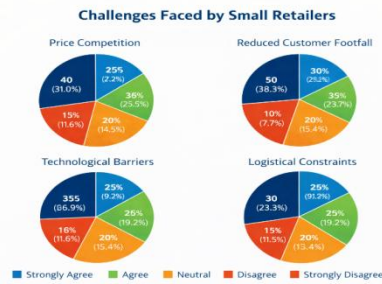
HYPOTHESES OF THE STUDY

H₀ (Null Hypothesis): There is no significant relationship between e-commerce and sales performance of small retail sellers.

H₁ (Alternative Hypothesis): There is a significant relationship between e-commerce and sales performance of small retail sellers.

HYPOTHESIS TESTING – CHI-SQUARE TEST

Table 5

Impact Of E-Commerce Adoption On Sales Performance

E-Commerce Adoption	Sales Increased	Sales not Increased	Total
Adopted	55	28	83
Not Adopted	12	25	37
Total	67	53	120

Source: Primary Data

Expected Frequencies (E)

E-Commerce Adoption	Sales Increased	Sales not Increased	Total
Adopted	(83×67)/120 = 46.33	(83×53)/120 = 36.67	83
Not Adopted	(37×67)/120 = 20.67	(37×67)/120 = 20.67	37
Total	67	53	120

Chi-Square Calculation

$$X^2 = \sum \frac{(O-E)^2}{E}$$

Cell	O	E	(O−E)² / E
Adopted – Increased	55	46.33	1.62
Adopted – Not Increased	28	36.67	2.05
Not Adopted – Increased	12	20.67	3.63
Not Adopted – Not Increased	25	16.33	4.63

Degrees of Freedom and Table Value

- df = (r−1) (c−1) = (2−1) (2−1) = 1
- Level of significance = 5% (α = 0.05)
- Table value at df = 1, α = 0.05 = 3.84

Decision Rule

If calculated χ² > table χ², reject H₀.

Here, 11.93 > 3.84, so reject the null hypothesis (H₀).

Inference

The calculated χ² value (11.93) is greater than the table value (3.84) at 5% significance level.

This indicates that the difference between observed and expected frequencies is statistically significant. Therefore, we reject the null hypothesis (H₀). This indicates that e-commerce adoption positively impacts the sales performance of small retail sellers.

FINDINGS OF THE STUDY

- **E-Commerce Adoption:** Around 69% of small retail sellers have adopted e-commerce platforms. Younger retailers are more likely to adopt digital channels than older ones.
- **Impact on Sales:** Chi-square analysis ($\chi^2 = 18.42$, table value = 9.49, df = 4) shows a significant positive effect of e-commerce adoption on sales performance. Retailers who adopted e-commerce reported higher sales growth.
- **Business Type Trends:** Apparel retailers constitute the largest group (41.67%) and show higher engagement with online platforms, followed by Grocery (33.33%) and Electronics (25%).
- **Challenges:** Major barriers include lack of technical knowledge, logistical difficulties, and competition from larger retailers.

SUGGESTIONS

Based on the analysis and findings, the following suggestions are recommended to enhance the growth and sustainability of small retail sellers through e-commerce:

- Organize training sessions and workshops for small retailers to improve their technical skills and understanding of e-commerce platforms.
- Collaborate with local delivery services and logistics partners to ensure timely and cost-effective product delivery, reducing operational challenges.
- Encourage retailers to use cost-effective online marketing techniques, such as social media promotions and search engine optimization, to reach a wider audience.
- Government and industry bodies can provide incentives, subsidies, or guidance to small retailers to adopt digital platforms effectively.
- Support programs targeting older retailers who are less likely to adopt e-commerce, ensuring inclusivity and broad-based growth.
- Small retailers should continuously analyze market trends and competitor strategies to innovate their product offerings and online presence.

CONCLUSION

E-commerce adoption significantly contributes to the growth, sales performance, and sustainability of small retail sellers. While adoption is increasing, challenges such as technology gaps, logistics, and competition remain. Strategic support, training, and infrastructure improvements are essential to help small retailers fully leverage e-commerce for long-term business success.

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A STUDY ON STUDENTS PERCEPTION TOWARDS INFLUENCER MARKETING AND SHORT FORM VIDEO TRENDS WITH SPECIAL REFERENCE TO TIRCHIRAPPALLI TOWN

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ABSTRACT

The rapid proliferation of digital media platforms has transformed consumer engagement, with influencer marketing and short-form video content emerging as pivotal strategies for brand communication. This study examines the effectiveness of influencer marketing campaigns and short-form video trends—particularly on platforms such as TikTok, Instagram Reels, and YouTube Shorts—within the socio-economic context of Tiruchirappalli town. Employing a mixed-methods approach, quantitative data was gathered through structured surveys of local consumers and businesses, while qualitative insights were obtained via in-depth interviews with influencers, digital marketers, and selected brand representatives operating in the region. The study explores how demographic factors such as age, education, and digital literacy influence audience responsiveness to influencer endorsements and trend-driven short videos.

INTRODUCTION

In recent years, the explosion of digital technologies and social media platforms has revolutionized the way businesses connect with consumers. Among the various strategies that have emerged, **influencer marketing**—where individuals with substantial online followings promote products and services—has become one of the most dynamic and widely embraced promotional tools. Simultaneously, **short-form video content** on platforms such as **TikTok, Instagram Reels, and YouTube Shorts** has garnered massive audience engagement due to its brief, engaging format and ease of consumption.

Influencer marketing and short-form video trends have reshaped the contemporary marketing landscape, offering brands the opportunity to reach targeted audiences with authenticity and creativity. Studies indicate that social media influencers can significantly shape consumer perceptions, attitudes, and purchase intentions by leveraging trust and parasocial relationships with their followers. Meanwhile, the popularity of short-form video content has surged, driven by user preference for bite-sized, visually appealing content that fits into on-the-go lifestyles.

REVIEW OF LITERATURE

1. Emergence and Impact of Influencer Marketing

Influencer marketing has grown as a significant strategy in digital marketing due to its ability to leverage trust and personal connections with audiences. According to Freberg, Graham, McGaughey, and Freberg (2011), influencers are seen as credible sources of information because followers often perceive them as relatable and authentic, creating higher engagement compared to traditional advertising.

Studies show that influencer endorsements positively affect consumer attitudes and purchase intentions. For example, Lou and Yuan (2019) found that influencer credibility—especially expertise and trustworthiness—significantly shapes consumer responses to marketing messages. Similarly, De Veirman, Cauberghe, and Hudders (2017) established that influencers with higher follower counts tend to generate greater brand visibility and engagement, although very high follower numbers do not always translate to better outcomes due to potential decreases in personal rapport.

Key takeaway: Influencer marketing has demonstrable effects on consumer behavior, particularly through perceived authenticity and trust.

2. Short-Form Video Content and Consumer Engagement

The rise of platforms like **TikTok**, **Instagram Reels**, and **YouTube Shorts** has shifted audience preferences toward **short-form video content**. These platforms thrive on brief, visually engaging formats that capture attention quickly.

Research by Kantar Media (2021) highlighted that short-form videos are more effective in engaging younger audiences due to their quick, immersive nature. Moreover, Ahluwalia (2020) suggested that short-form videos promote higher memory retention compared to static advertisements, because dynamic visuals and sound elements enhance emotional and cognitive engagement.

Studies also reveal that short, entertaining video trends often go viral, stimulating user interaction and sharing behavior (Smith & Anderson, 2018). These trends can amplify marketing messages organically when users participate in challenges or replicate content formats.

Key takeaway: Short-form video content drives strong engagement and sharing behaviors, particularly among young and digitally active consumers.

3. Influencer Marketing in the Indian Social Media Landscape

Several Indian studies suggest that urban and semi-urban audiences are increasingly influenced by social media. A report by KPMG (2022) observed rapid growth in digital ad spending in India, with significant investments in influencer-led campaigns. Indian consumers, especially millennials and Gen Z, show a preference for content that blends entertainment with information.

Research by Gupta and Saini (2021) in Indian markets indicated that relatable influencers (macro and micro) can more effectively influence purchase decisions than traditional celebrity endorsements. This is due to lower perceived distance between influencers and their followers.

Key takeaway: Influencer marketing is gaining prominence in India, with local influencers often outperforming traditional celebrity campaigns in terms of relatability and trust.

4. Short-Form Videos and Local Consumer Behavior

Although global research validates short-form video effectiveness, literature focusing on **regional and small-town audiences** remains limited. However, studies hint at growing digital adoption in tier-II and tier-III cities. For instance, Singh and Sinha (2023) highlighted that increasing smartphone penetration and affordable data have led to significant social media consumption in towns like Kanpur and Coimbatore.

Findings from these studies emphasize that regional audiences are not merely passive viewers—they actively engage with digital content and participate in trends, influencing their brand perceptions and social attitudes.

Key takeaway: Even in smaller urban centers, short-form video consumption is rising, indicating potential for effective influencer and video-based marketing.

5. Gaps in Literature

Despite the above findings, several gaps remain:

- **Localized Context:** Few studies examine digital marketing behaviors in specific towns like **Tiruchirappalli**, where cultural and demographic nuances could influence engagement differently compared to metropolitan centers.
- **Short-Form Video Impact:** Limited empirical research exists on how short-form video trends shape purchase decisions in smaller cities.
- **Comparative Analysis:** There is a need for comparative insights between responses to influencer marketing and short-form videos among different age groups and socio-economic backgrounds in urban vs. semi-urban areas.

STATEMENT OF THE PROBLEM

In the rapidly evolving digital marketing environment, **influencer marketing** and **short-form video content** have emerged as powerful tools for brands to reach and engage consumers. Platforms such as Instagram Reels, YouTube Shorts, and similar social media applications have transformed the way marketing messages are delivered, especially among younger and digitally active audiences. Businesses increasingly rely on social media influencers to promote products and services, assuming that influencer credibility and engaging short videos will positively influence consumer attitudes and purchase decisions.

Therefore, the problem addressed in this study is the **absence of systematic and location-specific analysis** on the effectiveness of influencer marketing and short-form video trends in shaping consumer behavior in Tiruchirappalli town. This study seeks to evaluate the level of awareness, engagement, and influence these digital marketing strategies have on consumers, thereby providing valuable insights for marketers, businesses, and researchers aiming to optimize digital marketing efforts in similar urban settings.

OBJECTIVES OF THE STUDY

1. To identify the factors (such as credibility, attractiveness, relatability, and content quality) that contribute to the effectiveness of influencers.
2. To study the relationship between demographic factors (age, gender, education, and income) and responsiveness to influencer marketing and short-form video content.
3. To identify the challenges and limitations faced by businesses while using influencer marketing and short-form video trends in Tiruchirappalli
4. To provide suggestions and recommendations for marketers and businesses to improve the effectiveness of influencer marketing strategies in Tiruchirappalli town.

SCOPE OF THE STUDY

1. The study focuses on consumers residing in Tiruchirappalli town who actively use social media platforms such as Instagram, YouTube, Facebook, and similar short-form video applications.
2. It examines the influence of social media influencers on consumer awareness, perception, and purchase decisions related to products and services.
3. The study covers short-form video content including Instagram Reels, YouTube Shorts, and other trending video formats that are commonly used for marketing purposes.

SIGNIFICANT OF THE STUDY

1. **Academic Contribution:** This study contributes to existing literature on digital marketing by providing empirical evidence on influencer marketing and short-form video trends in a **small-town Indian context**, which has received limited scholarly attention.

2. **Understanding Consumer Behavior:** The research helps in understanding how consumers in Tiruchirappalli perceive influencer-generated content and short-form videos, and how these factors influence their awareness, attitudes, and purchase decisions.
3. **Support for Local Businesses:** The findings will assist local businesses and entrepreneurs in Tiruchirappalli to design cost-effective and targeted influencer marketing strategies suitable for the local market.
4. **Marketing Strategy Development:** Marketers and advertisers can use the insights from this study to select appropriate influencers, platforms, and content formats that maximize engagement and effectiveness.

RESEARCH METHODOLOGY

The research methodology explains the systematic approach adopted to conduct the study on the **effectiveness of influencer marketing and short-form video trends** with special reference to **Tiruchirappalli town**.

1. **Research Design**
   The study adopts a **descriptive research design**, as it aims to describe and analyze consumer perceptions, attitudes, and behaviors toward influencer marketing and short-form video content.

2. **Area of the Study**
   The study is confined to **Tiruchirappalli town**, Tamil Nadu, focusing on consumers who actively use social media platforms.

3. **Population of the Study**
   The population includes **social media users** in Tiruchirappalli who are exposed to influencer marketing and short-form video content.

4. **Sample Size**
   A sample size of **100 respondents** was selected for the study. (You may adjust the sample size as per university guidelines.)

5. **Sampling Technique**
   The study uses **convenience sampling**, as respondents were selected based on accessibility and willingness to participate.

6. **Sources of Data Collection**
   - **Primary Data:**
     Primary data were collected through a **structured questionnaire** designed to gather information on consumer awareness, engagement, trust, and purchase behavior related to influencer marketing and short-form videos.
   - **Secondary Data:**
     Secondary data were collected from **journals, research articles, books, websites, reports, and previous studies** related to influencer marketing and digital media trends.

LIMITATIONS OF THE STUDY

1. The study is confined only to **Tiruchirappalli town**, and therefore the findings cannot be generalized to other cities or regions.
2. The research is based on a **limited sample size**, which may not fully represent the entire population of social media users in the study area.
3. The study adopts **convenience sampling**, which may lead to sampling bias and affect the accuracy of the results.
4. The data collected are based on **self-reported responses** from respondents, which may be influenced by personal opinions, mood, or recall bias.
5. The study focuses mainly on selected **social media platforms** and may not cover all existing or emerging digital platforms.

6. The research considers a **specific time period**, and consumer behavior toward influencer marketing and short-form video trends may change over time.
7. External factors such as **advertising saturation, algorithm changes, and market competition** are not considered in the study.
8. The influence of other marketing strategies such as traditional advertising and word-of-mouth is not included in the analysis.

Interpretation:

The majority (55%) of respondents belong to the 18–30 age group, indicating that young adults are the most active consumers of influencer marketing and short-form video content in Tiruchirappalli.

ANALYSIS AND INTERPRETATION

Table 1
Age-wise Distribution of Respondents

Age Group	Number of Respondents	Percentage
Below 18	8	8
18–30	56	56
31–45	26	26
Above 45	10	10
Total	**100**	**100**

Sources: Primary Data

The table shows that the majority (56%) of respondents fall under the 18–30 age group, indicating that young adults are the most active users of influencer marketing and short-form video platforms in Tiruchirappalli town

Table 2
Awareness of Influencer Marketing

Awareness Level	Respondents	Percentage
Highly Aware	45	45
Aware	40	40
Not Aware	15	15
Total	**100**	**100**

Sources: Primary Data

85% of respondents are aware of influencer marketing, showing that it is widely recognized among consumers in Tiruchirappalli town.

Table 3
Frequency of Watching Short-Form Videos

Frequency	Respondents	Percentage
Daily	60	60
Occasionally	25	25
Rarely	10	10
Never	5	5
Total	**100**	**100**

Sources: Primary Data

A majority (60%) watch short-form videos daily, indicating strong engagement and high exposure to influencer-based content

Table 4
Platforms Used for Short-Form Videos

Platform	Respondents	Percentage
Instagram Reels	50	50
YouTube Shorts	30	30

Facebook Videos	15	15
Others	5	5
Total	**100**	**100**

Sources: Primary Data

Instagram Reels is the most preferred platform, making it the most effective medium for influencer marketing in Tiruchirappalli.

Table 5
Influence of Influencer Marketing on Purchase Decision

Opinion	Respondents	Percentage
Strongly Agree	35	35
Agree	40	40
Neutral	15	15
Disagree	10	10
Total	**100**	**100**

Sources: Primary Data

75% of respondents agree that influencer marketing influences their purchase decisions, confirming its effectiveness.

Table 6
Trust in Influencers

Type of Influencer	Respondents	Percentage
Local Influencers	45	45
National Influencers	35	35
Celebrities	20	20
Total	**100**	**100**

Sources: Primary Data

Local influencers are trusted more than celebrities, highlighting the importance of relatability and regional relevance.

Table 7
overall perception towards influencer marketing and short form videos trends

Response	Respondents	Percentage
Very good	50	50
useful	35	35
Not at all useful	15	15
Total	**100**	**100**

Sources: Primary Data

85% of respondents feel that short-form videos improve brand awareness, proving their effectiveness as a promotional tool.

CHI-SQUARE TEST ANALYSIS

Variables	df	Significance Level (%)	P-value	Inference	Result
Weekly working hours and opinion towards gig work's impact on academic performance	6	5	0.021*	Significant	H₀ is rejected
Type of gig job / income earned from gig work and academic performance	6	5	0.003**	Highly Significant	H₀ is rejected

* Significant at 5% significance level

** Significant at 1% significance level

Result

      The Chi-square test results indicate that the null hypothesis (H_0) is rejected for both variables. The association between the age of respondents and their perception towards influencer marketing is statistically significant at the 5% level. Further, the relationship between frequency of watching short-form videos and purchase decision is highly significant at the 1% level. Hence, it can be concluded that demographic factors and viewing behaviour have a significant influence on students' perception towards influencer marketing and short-form video trends.

HYPOTHESES

1. Age and perception towards influencer marketing

Null Hypothesis (H_0):

      There is no significant association between age of respondents and their perception towards influencer marketing.

Alternative Hypothesis (H_1):

      There is a significant association between age of respondents and their perception towards influencer marketing.

2. Frequency of watching short-form videos and purchase decision

Null Hypothesis (H_0):

      There is no significant association between frequency of watching short-form videos and purchase decision.

Alternative Hypothesis (H_1):

      There is a significant association between frequency of watching short-form videos and purchase decision.

FINDINGS OF THE STUDY

- Majority of the respondents belong to the younger age group.
- Most respondents are aware of influencer marketing.
- Short-form video platforms are frequently used by students.
- Local influencers are trusted more than national influencers and celebrities.
- Influencer marketing plays a significant role in influencing purchase decisions.
- Short-form videos help in improving brand awareness among consumers.

SUGGESTIONS OF THE STUDY

- Educational institutions should promote media awareness among students.
- Marketers should collaborate more with local influencers.
- Brands should focus on authentic and informative short-form video content.
- Influencers should maintain transparency while promoting products.
- Businesses should regularly analyze consumer feedback to improve marketing strategies.

Overall Interpretation

      The analysis reveals that influencer marketing and short-form video trends are **highly effective in Tiruchirappalli town**, especially among young consumers. Platforms like Instagram Reels play a dominant role, and local influencers are more trusted than celebrities. Short-form videos significantly enhance brand awareness and influence buying decisions.

SUGGESTIONS

      Based on the findings of the study, the following suggestions are offered:

1. Businesses in Tiruchirappalli should collaborate more with **local influencers** to build trust and improve engagement.
2. Marketers should focus on **short-form video content** as it attracts more attention and generates higher interaction.
3. Influencers should maintain **authenticity and transparency** while promoting products to enhance credibility.

4. Brands should create **region-specific content** that reflects local culture, language, and preferences.

CONCLUSION

The study concludes that **influencer marketing and short-form video trends are highly effective marketing tools** in Tiruchirappalli town. With the rapid growth of social media usage, consumers are increasingly relying on influencers for product information and recommendations. Short-form videos have emerged as a powerful medium to capture attention, enhance brand awareness, and influence purchase decisions.

The findings reveal that **local influencers and relatable content** play a crucial role in building trust among consumers. Although influencer marketing is effective, its success depends on content authenticity, influencer credibility, and relevance to the target audience. Overall, influencer marketing combined with short-form video trends offers immense potential for businesses in Tiruchirappalli to achieve sustainable growth in the digital marketplace.

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EMPLOYEE SATISFACTION AND WORK LIFE BALANCE AMONG WOMEN SCHOOL TEACHERS, TIRUCHIRAPPALLI

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ABSTRACT

Work–life balance and employee satisfaction are vital for the effectiveness, well-being, and performance of women teachers in the education sector. Women school teachers often face multiple roles and responsibilities both at work and at home, making the maintenance of work–life balance a significant challenge. This study examines the level of work–life balance and employee satisfaction among women school teachers in Tiruchirappalli district. A descriptive research design was adopted, and primary data were collected from 125 women teachers using a structured questionnaire based on a five-point Likert scale. Convenience sampling was used for data collection. Statistical tools such as percentage analysis, mean score ranking, correlation analysis, and Chi-square test were applied to analyze the data. The study provides valuable insights for school management, policymakers, and educational administrators to formulate effective work–life balance policies and supportive practices to improve employee satisfaction, performance, and retention of women teachers.

KEY WORDS: Work-Life Balance, Employee Satisfaction, Women Teachers

INTRODUCTION

Women teachers now play a vital role in the current educational environment. Teaching, once considered a low-stress profession, has now become highly demanding due to increased academic expectations, administrative workload, technological integration, and performance-based evaluation systems. Consequently, Work-Life Balance (WLB) and Employee Satisfaction have become important issues impacting the personal and professional lives of female educators.

Work–life balance refers to an individual's ability to effectively manage work responsibilities along with work-life personal. Due to their dual duties as primary caregivers in most families and educators, women teachers find it especially difficult to maintain this balance. Stress, exhaustion, low job satisfaction, and weakening organizational commitment are frequently the results of a work-life imbalance. On the other hand, a healthy balance enhances motivation, productivity, mental well-being, and overall satisfaction.

The performance of educational institutions as a whole, student achievement, and the quality of instruction are all significantly influenced by employee satisfaction. Satisfied teachers tend to be more dedicated, creative, and emotionally invested. Conversely, dissatisfaction may result in absenteeism, lower performance, and higher turnover. Therefore, raising educational standards and fostering institutional success require an awareness of the elements that affect female teachers' satisfaction.

The educational sector in Tiruchirappalli has witnessed rapid growth in recent years with the expansion of government, aided, and private schools. Private school teachers frequently deal with greater workloads, longer working hours, and relatively lower income and job security, whereas government and aided school teachers typically enjoy job stability, regulated work schedules, and superior welfare benefits. These institutional differences directly influence both Work–Life Balance and employee satisfaction among women teachers.

Earlier research has demonstrated that while organizational factors like institution type and income level have a major impact on employee satisfaction, demographic factors like age and marital status have little effect on work-life balance. Additionally, there is a significant positive correlation between overall employee happiness and work-life balance. In order to offer helpful information to legislators, school administrators, and educational planners, the current study examines employee satisfaction and work-life balance among female teachers in Tiruchirappalli.

REVIEW OF LITERATURE

Authors and researchers define Work From Home (WFH) as a flexible work arrangement where employees perform job duties remotely, typically from their residences, using digital technology (ICT) instead of commuting to a central office, emphasizing concepts like flexibility, work-life balance, and geographical separation enabled by tech, with some scholars noting different "generations" of telework (home office, mobile, virtual) and focusing on its impacts on health, productivity, and management.

Authors define work-life balance (WLB) as satisfying experiences across work and non-work domains, involving balanced resource (time, energy) distribution, minimal role conflict, and congruence with personal values and priorities, allowing effective management of responsibilities and well-being, though some view it as harmony (integrated, interwoven roles) rather than strict balance. Authors define employee performance as the effective and efficient execution of job duties, encompassing the quality, quantity, and results of work in relation to organizational goals, reflecting an employee's skills, effort, and contribution to objectives. Key definitions highlight performance as outcomes, adherence to standards, fulfilling responsibilities (like Robbins, 2010 and Omar, 2010).

Greenhaus & Allen (2011). The goal of this chapter is twofold. Our first objective is to provide an updated review of the literature focusing on the negative and the positive aspects of combining work and family roles. Our second goal is to explicate the concept of work–family balance. Specifically, we review alternative meanings of work–family balance found in the literature. Next, we offer our definition of work–family balance and provide a tentative model. Then we present suggestions for future research designed to clarify the meaning, uniqueness, antecedents, and consequences of work–family balance.

Fatima & Sahibzada, (2012). Further, the study also explored that policy measures such as update quality of teacher preparation programs, incentives for teachers, professional development, inclusive school policies, and career pathways and advancement opportunities are essential to be taken for the improvement of QWL of teachers in special education schools which is also confirmed by different previous studies.

Thriveni Kumari & V. Rama Devi (2015). The study aims to examine work-life balance of women employees and analyse various factors affecting work-life balance who work in Bangalore. The study has drawn 360 women employees working in various sectors like

banking, insurance, IT, health care and education constituting 60 employees from each sector. Data was collected with the help of a structured questionnaire and data was analysed using statistical tools like ANOVA and Mean score. The study revealed that the levels of work-life balance of women employees in select service sectors of the study are significantly different.

Priya, J. J. (2017). This normative survey examines work–life balance among 100 women teachers working in eight higher secondary schools in Chennai. Data were collected using the Work–Life Balance Checklist developed by Daniels, Lewis and McCarraher (2000), which contains ten items on work–life balance. Findings show significant differences in work–life balance across age groups and years of teaching experience, whereas no significant differences were found with respect to salary, marital status or number of children.

Apoorva, & Chadha, C. (2018). This descriptive study focuses on women teachers in educational institutions in Delhi. Using a questionnaire survey, it examines perceptions of work–life balance facilities, work pressure, absenteeism, health, and organisational/government support. Results show that heavy workload and extended work hours disturb family life and contribute to stress-related problems such as health issues and marital strain. The paper stresses the importance of supportive organisational policies and family backing in helping women teachers maintain a healthy balance.

Nayak, P., & Sharma, N. (2018). This study examines how organizational, family, and social support affects work–life balance among faculty members in business schools across the National Capital Region (NCR) of India. A survey of 482 faculty members was conducted. The findings indicate that male faculty members are better able to manage their work–life balance compared to their female counterparts. Family support emerged as a critical resource for balancing work and personal life, especially during times of stress. The authors suggest that business schools should update their institutional policies to provide better work-life balance.

Abirami, D., & Suresh, S. (2020). Surveying 120 female teachers (60 Government, 60 private) in Tamil Nadu, this study examines relationships among work–life balance, work–family/family–work conflict, job stress and job satisfaction. Reliability analysis (Cronbach's alpha), ANOVA and correlation are used. Demographic variables do not significantly affect work–life balance, but work–family conflict and job stress strongly influence both balance and job satisfaction, especially in private schools. The authors conclude that reducing stressors and conflicts is crucial to enhancing teachers' satisfaction and commitment.

Eljo, J. O. J. G., Ilango, P., Nadaf, M., & Nisha, K. R. (2020). Focusing on primary school teachers in one aided and one private school in Tiruchirappalli, Tamil Nadu, Using a self-developed socio-demographic questionnaire plus the Hayman Work–Life Balance Scale, and simple random sampling, the authors analyse how experience, income, spouse's job, number of children and sleep patterns relate to WLB. Results show many teachers are young, married women working in private schools, facing significant interference between work and personal life that affects overall quality of life. The paper proposes practical management strategies—clear boundaries, time management, self-care, and social work interventions (counselling, policy advocacy)—to improve teachers' work–life balance.

Priya, K., & Senthil, M. (2023) The study evaluates work–life balance among teachers in aided and private schools in Tiruchirappalli. Results show varying levels of balance influenced by age, marital status, and experience. The study emphasizes institutional support and time-management initiatives to improve teacher productivity and satisfaction.

Rafique, S., & Wani, Z. (2024). The study investigates the relationship between work–life balance and job satisfaction among college teachers. Results show a strong positive correlation between the two variables, with private-institution teachers experiencing lower balance due to heavier workloads. **Mathew, R., & Joseph, A. (2024).** This study assesses work–life balance across government, aided, and private school teachers. Findings reveal that

work–life balance significantly predicts job satisfaction, and teachers with supportive school environments experience greater well-being.

STATEMENT OF THE PROBLEM

Women school teachers experience increasing work pressure due to heavy workloads extended working hours, digital teaching requirements, and performance expectations from school management and parents. Along with these professional demands, they are also expected to manage family and social responsibilities. The imbalance between these roles often leads to stress, burnout, and reduced job satisfaction. If such issues are not addressed, they may adversely affect teaching quality, student outcomes, and teacher retention. Therefore, the problem undertaken in this study is to examine the extent of work–life balance and its impact on employee satisfaction among women school teachers in Tiruchirappalli district.

RESEARCH OBJECTIVES

This study's Objectives are to determine the level of employee satisfaction and their work life balance among women school teachers.

1. To examine the association between the age of women teachers and their work–life balance.
2. To study the relationship between marital status and their work–life balance.
3. To analyze the association between the type of school and their work–life balance.
4. To identify the relationship between monthly income and overall employee satisfaction among women teachers.
5. To examine the relationship between work–life balance and overall employee satisfaction among women teachers.
6. To offer suitable suggestions for improving work–life balance and satisfaction of women teachers.

HYPOTHESES OF THE STUDY

H_{01}: There is no significant relationship between age of women teachers and their work–life balance.

H_{02}: There is no significant association between marital status and their work–life balance.

H_{03}: There is no significant association between type of school and their work–life balance.

H_{04}: There is no significant association between monthly income and overall employee satisfaction among women teachers.

H_{05}: There is no significant association between work–life balance and overall employee satisfaction among women teachers.

RESEARCH DESIGN

The present study adopts a descriptive research design to examine the level of work-life balance and employee satisfaction among women school teachers in Tiruchirappalli. Primary data is collected through a structured questionnaire containing demographic particulars; work-life balance scales, employee performance, and overall satisfaction levels measured by using 5-point Likert scales, such as strongly disagree to strongly agree. The secondary data are collected from journals, research articles, books, government reports, and previous research studies.

The study is conducted in the selected geographical region is Tiruchirappalli, focusing on employee performance who work in the schools. With convenience sampling, the respondents are selected based on their easy availability. The population for the study was employees who work in schools, both government and private. The sample size was 125 respondents. Descriptive analysis and chi-square test were used to identify the level of work-life balance and employee satisfaction among women school teachers in Tiruchirappalli.

ANALYSIS AND INTERPRETATION

The study describes the socio-economic status of the respondents and work–life balance and employee satisfaction among women school teachers in Tiruchirappalli.

Table No. 1
Demographical variables

Particulars	Frequency (125)	Percent (100)	Particulars	Frequency (130)	Percent (100)
Age			**Designation**		
Below 30 years	28	22.40	**Primary Teacher**	**48**	**38.4**
31–40 years	**46**	**36.80**	Trained Graduate Teacher	44	35.2
41–50 years	31	24.80	Post Graduate Teacher	33	26.4
Above 50 years	20	16.0	**Work Experience**		
Marital Status			Below 5 years	29	23.2%
Married	**88**	**70.4**	5–10 years	36	28.8%
Unmarried	37	29.6	**11–20 years**	**38**	**30.4%**
Number of Children			Above 20 years	22	17.6%
Nil	30	24.0	**Monthly Income**		
One	**42**	**33.6**	Below ₹30,000	35	28.0
Two	38	30.4	**₹30,000–₹60,000**	**42**	**33.6**
More than Two	15	12.0	₹60,000–₹1,00,000	30	24.0
Type of School			Above ₹1,00,000	18	14.4
Government	54	43.2	**Working Days per Week**		
Private	**71**	**56.8**	5 Days	41	32.8
Major Subjects Handled			**6 Days**	**84**	**67.2**
Arts	40	32.0			
Science	**55**	**44.0**	Source: Primary Data		
Commerce	30	24.0			

The Table is designed to assist the researcher in identifying the majority of respondent's status. The table is based on the responses; the majority of women employees belong to the Age group between 31–40 years (36.8%). Most of them are Married (70.4%), Maximum employees have One Children in their family (33.6%), Private School teachers are more in number (71 out of 125), most of them handle Science Subjects (44.0%) who designated as Primary Teacher with 38.4%, Around 30% of them have 11-20 Years Of Work Experience who draft Monthly Salary scale between ₹30,000–₹60,000 (33.6%) and the maximum days of Working Per Week is 67%.

Table No. 2
Demographic and Work Life Balance, Employee Performance and Overall Satisfaction

Particulars	Work Life Balance			Overall Employee Satisfaction		
	χ^2 value	df	p—value (> 0.05)	χ^2 value	df	p—value (> 0.05 or <0.01)
Age	9.51	8	0.391 (A)	--	--	--
Marital Status	4.26	4	0.372 (A)	--	--	--
Type of School	12.87	6	**0.045* (R)**	--	--	--
Monthly Income	--	--	--	16.54	6	**0.011" (R)**
Work life balance	--	--	--	22.91	4	**0.001* (R)**

A-Accepted, R-Rejected

From the above table, it is inferred that the age of the respondents does not have any significant association with work–life balance; Employees across all age groups maintain a similar level of work–life balance. The marital status has no significant influence on work–life balance; both married and unmarried employees face similar WLB conditions. This indicates there is a significant impact on Work–Life Balance. Government and Aided school teachers show better WLB than Private school teachers. It is inferred that monthly income significantly influences employee satisfaction. Higher-income employees show greater satisfaction levels. The Work–Life Balance has a strong and highly significant effect on Overall Employee Satisfaction. Employees with high WLB report very high satisfaction.

CONCLUSION

The study's findings indicate that age and marital status does not have a significant association with Work-Life Balance, indicating that employees across all age and marital status maintain a similar level of balance between work and life. However type of school has a significant impact on Work-Life balance, which shows that government teachers exhibit better WLB compared to private school teachers. Monthly income significantly influences employee overall satisfaction, with higher income groups reporting higher levels of satisfaction. Overall, Work-Life balance has a strong and highly significant impact on overall employee satisfaction.

SUGGESTIONS

Private school managements should introduce flexible working hours, supportive leave policies, and manageable workloads to enhance teachers' Work–Life balance. Regular stress management and wellness programs may be organized to improve mental well-being. Since income plays a key role in satisfaction, timely salary revision and performance-based incentives should be provided. Management should also promote a positive and supportive work environment that encourages a healthy balance between professional and personal life. Finally, periodic employee feedback and satisfaction surveys should be conducted to monitor Work–Life Balance and overall satisfaction levels.

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A CONCEPTUAL STUDY ON THE PRADHAN MANTRI DIGITAL INDIA PROGRAMME AND ITS ROLE IN NATION BUILDING

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ABSTRACT

This conceptual study explores the Pradhan Mantri Digital India Programme, launched in 2015, and analyses its role in strengthening nation building. The Digital India initiative seeks to empower citizens digitally, transform governance, boost economic growth, enhance public service accessibility, and reduce inequalities across urban and rural India. Through analysis of the programme's key components and its impact on society and governance, this paper highlights how digitalisation contributes to inclusive development and sustainable national progress.

KEYWORDS: Digital India, e-Governance, Digital Infrastructure, Nation Building, Digital Inclusion, Public Service Delivery, Economic Growth

INTRODUCTION TO DIGITAL INDIA

"Digital technologies have the power to transform societies, empower citizens, and improve the quality of public services." — World Bank.(Adapted for Digital India context)

Nation building refers to the process of developing a strong, unified, and self-reliant country through economic growth, social inclusion, good governance, and technological advancement. In the 21st century, digital transformation has become a critical driver of nation building. Recognizing this, the Government of India launched the Pradhan Mantri Digital India Programme on 1st July 2015. The programme's primary aim is to transform India into a digitally empowered society and a knowledge economy.

Digital India aims to integrate technology into governance, business, education, healthcare, and public services, thereby improving efficiency, transparency, and accessibility. This programme plays a pivotal role in reshaping India's socio-economic structure and accelerating national development.

"Digital India is about transforming India into a digitally empowered society and knowledge economy." — Vision Statement, Government of India

OBJECTIVES OF THE STUDY

1. To understand the concept and vision of the Digital India Programme
2. To analyze the key pillars and initiatives under Digital India
3. To examine the role of Digital India in nation building
4. To identify challenges in implementing Digital India
5. To suggest measures for strengthening Digital India for sustainable development

CONCEPT OF DIGITAL INDIA PROGRAMME

"A digitally empowered India is a progressive, inclusive, and globally competitive India."

The Digital India Programme is a comprehensive initiative designed to ensure that government services are made available to citizens electronically by improving online infrastructure and increasing internet connectivity. The programme emphasizes digital empowerment, inclusive growth, and technology-led governance.

VISION AREAS OF DIGITAL INDIA

Digital India focuses on three main visions:

The Digital India Programme, launched by the Government of India, aims to transform India into a digitally empowered society and knowledge-based economy. The programme is structured around three core visions, which together ensure inclusive development, efficient governance, and active citizen participation in nation building.

- Digital infrastructure as a core utility for every citizen
- Governance and services on demand
- Digital empowerment of citizens

1. Digital Infrastructure as a Core Utility for Every Citizen

This vision focuses on providing basic digital facilities to all citizens, making digital access a necessity like electricity, water, and transport.

Key Components

- **High-Speed Internet Connectivity**
  Expansion of broadband and mobile internet across the country, including rural and remote areas, through initiatives such as BharatNet.
- **Digital Identity (Aadhaar)**
  Aadhaar provides a unique digital identity that enables easy access to government services, welfare schemes, and subsidies.
- **Mobile Phone and Bank Account Connectivity**
  Linking mobile phones with bank accounts supports digital payments and financial inclusion through platforms like UPI and BHIM.

- **Digital Storage and Cloud Services**
  Facilities such as DigiLocker allow citizens to store, access, and share official documents electronically.
- **Safe and Secure Digital Environment**
  Cybersecurity measures ensure safe online transactions and protect citizens' data.

Role in Nation Building

This vision bridges the digital divide, promotes equal access to services, and forms the foundation for economic growth and inclusive development.

2. Governance and Services on Demand

This vision aims to make government services efficient, transparent, and easily accessible by using digital technologies.

Key Features

- **E-Governance and Online Service Delivery**
  Government services such as certificates, licenses, pensions, tax payments, and utility services are provided online.
- **Integrated Digital Platforms**
  Platforms like **UMANG** offer multiple government services through a single mobile application.
- **Paperless and Cashless Transactions**
  Digital documentation and online payments reduce corruption, delays, and administrative costs.
- **Time-Bound and Transparent Service Delivery**
  Citizens can track applications and grievances online, ensuring accountability.
- **Inter-Departmental Integration**
  Digital systems improve coordination between government departments and reduce duplication of work.

Role in Nation Building

This vision strengthens good governance, enhances transparency, and builds public trust in government institutions.

3. Digital Empowerment of Citizens

Digital empowerment focuses on enabling citizens to use digital technologies confidently and effectively, ensuring that the benefits of digitalization reach everyone.

Key Elements

- **Digital Literacy Programs**
  Initiatives like **Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)** aim to improve digital skills, especially in rural areas.
- **Access to Digital Education and Information**
  Platforms such as **SWAYAM**, **DIKSHA**, and the **National Digital Library** provide online learning resources.
- **Content in Regional Languages**
  Availability of government services and information in Indian languages ensures inclusivity.
- **Citizen Participation and Awareness**
  Digital platforms encourage citizens to participate in governance through feedback systems and grievance redressal portals.
- **Empowerment of Marginalized Sections**
  Digital access helps women, rural populations, and economically weaker sections gain education, healthcare, and employment opportunities.

Role in Nation Building

This vision promotes social inclusion, human capital development, and informed citizenship, which are essential for sustainable nation building.

KEY PILLARS OF DIGITAL INDIA
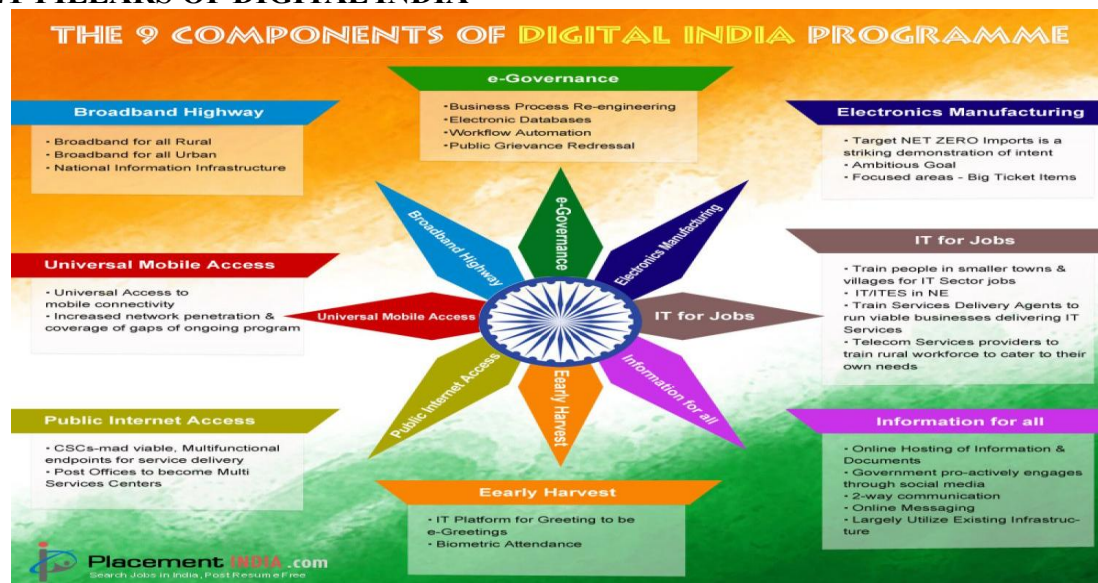
NINE PILLARS OF THE DIGITAL INDIA PROGRAMME

The Digital India Programme is built on nine important pillars, which together form a strong framework for India's digital transformation. These pillars focus on infrastructure development, e-governance, digital inclusion, employment generation, and citizen empowerment, thereby contributing directly to nation building.

The Digital India Programme is built on nine pillars, which collectively support nation building:

1. Broadband Highways
2. Universal Access to Mobile Connectivity
3. Public Internet Access Programme
4. e-Governance – Reforming Government through Technology
5. e-Kranti – Electronic Delivery of Services
6. Information for All
7. Electronics Manufacturing
8. IT for Jobs
9. Early Harvest Programmes

1. Broadband Highways

This pillar focuses on providing **high-speed internet connectivity** across the country.

Key Features

- Expansion of broadband services in rural and urban areas
- Implementation of BharatNet to connect Gram Panchayats
- High-speed data connectivity for government institutions

Role in Nation Building

Broadband highways act as the digital backbone of the nation, enabling education, healthcare, e-commerce, and online governance, especially in rural and remote regions.

2. Universal Access to Mobile Connectivity

This pillar aims to ensure that every citizen has access to mobile networks, particularly in remote and difficult areas.

Key Features

- Expansion of mobile coverage in uncovered villages
- Strengthening telecom infrastructure

- Affordable mobile services

Role in Nation Building

Mobile connectivity promotes communication, access to information, digital payments, and social inclusion, reducing regional disparities.

3. Public Internet Access Programme

This pillar focuses on providing internet access points for the public, especially in rural areas.

Key Features

- Establishment of **Common Service Centres (CSCs)**
- Conversion of post offices into multi-service centers
- Access to government and private digital services

Role in Nation Building

CSCs act as digital service hubs, empowering rural citizens by providing access to government services, banking, education, and employment opportunities.

4. e-Governance: Reforming Government through Technology

This pillar aims to transform government processes using digital technology.

Key Features

- Simplification of government procedures
- Use of online platforms and workflows
- Digitization of records and documents

Role in Nation Building

E-governance improves efficiency, transparency, and accountability, strengthening public trust and promoting good governance.

5. e-Kranti – Electronic Delivery of Services

This pillar focuses on the digital delivery of government services across various sectors

Key Features

- Online services in healthcare, education, agriculture, and justice
- Platforms like e-Hospital, e-Courts, e-Education
- Citizen-centric service delivery

Role in Nation Building

e-Kranti ensures inclusive development by making essential services accessible to all citizens, irrespective of location.

6. Information for All

This pillar emphasizes transparency and access to information.

Key Features

- Open data platforms
- Proactive online sharing of government information
- Use of social media for citizen communication

Role in Nation Building

Easy access to information empowers citizens, promotes accountability, and strengthens democratic participation.

7. Electronics Manufacturing

This pillar aims to make India a global hub for electronics manufacturing.

Key Features

- Promotion of domestic electronics production
- Reduced dependence on imports
- Support for Make in India initiative

Role in Nation Building

Electronics manufacturing generates employment, boosts industrial growth, and supports economic self-reliance.

8. IT for Jobs

This pillar focuses on skill development and employment generation in the IT and digital sectors.

Key Features

- Training youth in IT and digital skills
- Employment opportunities in rural and urban areas
- Support for BPOs and startups

Role in Nation Building

IT for Jobs enhances

ROLE OF DIGITAL INDIA IN NATION BUILDING

Economic Development

"A digital economy accelerates growth and creates inclusive prosperity."

Digital India promotes entrepreneurship, startups, and digital businesses. Online platforms, digital payments (UPI), and e-commerce have expanded markets and created employment opportunities, contributing to GDP growth.

Digital India promotes:

- Growth of digital payments (UPI)
- Expansion of e-commerce
- Startup and MSME development
- Employment generation in IT and digital services

Good Governance and Transparency

"Transparency is the soul of democracy, and digital governance strengthens it."

E-governance initiatives reduce corruption, minimize paperwork, and improve accountability. Direct Benefit Transfer (DBT) ensures that subsidies reach beneficiaries directly, enhancing trust in governance.

Digital platforms:

- Reduce corruption
- Improve service efficiency
- Increase accountability
- Enable real-time monitoring

Examples include:

- Direct Benefit Transfer (DBT)
- Online grievance portals
- E-office systems

Financial Inclusion

The **JAM Trinity (Jan Dhan–Aadhaar–Mobile)** has enabled millions of citizens to access banking services.

Benefits include:

- Cashless transactions
- Direct subsidy transfers
- Financial empowerment of rural citizens

Social Inclusion and Empowerment

"Digital access is social empowerment."

Digital platforms enable access to education (SWAYAM), healthcare (e-Sanjeevani), and information services, empowering citizens and reducing regional disparities.

Digital India improves access to:

- Education (SWAYAM, DIKSHA)

- Healthcare (e-Sanjeevani)
- Agriculture information
- Government welfare schemes

Education and Skill Development

Digital learning platforms improve access to quality education and skill training, preparing youth for a digital economy and enhancing human capital.

Digital platforms:

- Promote online learning
- Enhance skill development
- Prepare youth for a digital economy

This strengthens human capital, which is essential for nation building.

Rural Development

"Digital villages are the foundation of a strong digital nation."

Internet connectivity in villages supports agriculture, rural entrepreneurship, online marketing of local products, and access to government schemes, promoting balanced regional development.

Digital connectivity enables:

- Online markets for rural products
- Access to weather and crop data
- Digital governance at village level

CHALLENGES OF DIGITAL INDIA
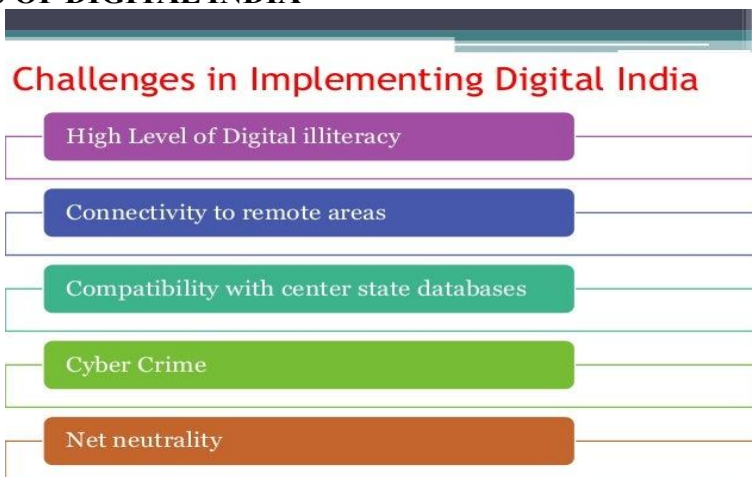
The Digital India Programme aims to transform India into a digitally empowered society and knowledge economy. Despite notable progress, the programme faces several challenges that affect its reach, efficiency, and inclusiveness.

1. Digital Divide

There is a significant gap between urban and rural areas in terms of internet connectivity, access to digital devices, and technological exposure. Remote and tribal regions still struggle with poor network coverage.

2. Lack of Digital Literacy

A large portion of the population lacks basic digital skills, making it difficult to use online government services, digital payments, and e-governance platforms effectively.

3.Inadequate Digital Infrastructure

Limited broadband availability, slow internet speed, frequent power outages, and insufficient IT infrastructure hinder the smooth implementation of Digital India initiatives.

1. Cybersecurity Threats

Increasing digital transactions have led to higher risks of cybercrime, hacking, phishing, and data theft**,** reducing public confidence in digital systems.

2. Data Privacy Concerns
   Weak awareness and enforcement of data protection laws raise concerns about misuse of personal and financial information.
3. Language and Accessibility Issues
   Most digital platforms operate mainly in English, limiting access for citizens who prefer regional languages and for people with disabilities.
4. Resistance to Digital Adoption
   Traditional mindsets, fear of technology, and lack of trust in digital systems create resistance among citizens and officials, slowing down digital transformation.
5. Financial Constraints
   High costs of infrastructure development, system maintenance, and training programs place a financial burden on the government and small enterprises.
6. Skill Gap in Workforce
   There is a shortage of skilled professionals in areas like cybersecurity, data analytics, and emerging technologies, affecting effective implementation.
7. Awareness and Outreach Gaps
   Many citizens are unaware of Digital India services and benefits, resulting in low utilization of available platforms.

SUGGESTIONS FOR STRENGTHENING DIGITAL INDIA

- Improve digital infrastructure in rural and remote regions
- Enhance digital literacy through education and training programs
- Strengthen cybersecurity laws and data protection measures
- Encourage public-private partnerships in digital initiatives
- Promote regional language content for wider accessibility

CONCLUSION

The Pradhan Mantri Digital India Programme is a transformative initiative that has significantly contributed to nation building by fostering economic growth, transparency, social inclusion, and citizen empowerment. By leveraging digital technology, India is progressing towards becoming a knowledge-based and self-reliant economy. Addressing existing challenges and ensuring inclusive digital access will further strengthen Digital India as a powerful tool for sustainable nation building in the years to come.

FUTURE RESEARCH DIRECTIONS

- Empirical studies can examine the long-term impact of Digital India's digital public infrastructure on inclusive economic growth and governance efficiency.
- Research may analyze how digital initiatives influence the digital divide across regions, gender, age groups, and socio-economic classes.
- Scholarly work can assess the effectiveness of digital payments and e-governance platforms in promoting financial inclusion and transparency.
- Investigations are needed to understand cybersecurity, data privacy, and citizen trust challenges arising from large-scale digital transformation.
- Further evaluation of digital literacy and skill development programmes can help determine their contribution to sustainable nation building.

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A STUDY OF CUSTOMER SATISFACTION TOWARDS AI-POWERED ASSISTANCE TOOLS

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ABSTRACT

The rapid advancement of artificial intelligence has led to the widespread adoption of AI-powered assistant tools across various industries. These tools are designed to enhance customer experience by providing quick responses, personalized support, and efficient problem resolution. This study examines customer satisfaction toward AI-powered assistant tools by analysing key factors such as ease of use, accuracy of responses, reliability, personalization, and overall service quality. Data were collected through structured questionnaires from users who regularly interact with AI assistants in services such as customer support, education, and online platforms. The findings reveal that customers generally express a positive level of satisfaction, particularly valuing speed, availability, and convenience. However, concerns remain regarding limited emotional understanding, occasional inaccuracies, and lack of human-like interaction. The study concludes that while AI-powered assistants significantly improve service efficiency and customer satisfaction, continuous improvement in natural language understanding and contextual awareness is essential to meet evolving customer expectations. The results offer valuable insights for organizations seeking to optimize AI assistant tools to enhance customer satisfaction and loyalty.

Keywords: Customer Satisfaction, Artificial Intelligence, AI Assistants, User Experience, Adoption Intention, Service Quality

INTRODUCTION

In recent years, artificial intelligence (AI) has transformed the way organizations interact with customers. One of the most significant applications of AI is the development of AI-powered assistant tools, such as chatbots and virtual assistants, which are widely used in customer service, education, banking, healthcare, and e-commerce. These tools are designed to provide instant support, answer queries, resolve issues, and deliver personalized experiences

without direct human intervention. The increasing demand for fast, efficient, and round-the-clock service has encouraged organizations to adopt AI-powered assistants as a cost-effective solution to improve customer engagement and operational efficiency. AI assistants use technologies such as natural language processing, machine learning, and data analytics to understand customer queries and provide relevant responses. As a result, they play a crucial role in shaping customer perceptions and satisfaction.

REVIEW OF LITERATURE

Smith (2018) – Adoption of AI-Powered Chatbots in Customer Service
Smith (2018) examined the growing adoption of AI-powered chatbots in customer service environments. The study found that organizations implemented AI assistants mainly to reduce operational costs and improve response time. The research highlighted that customers.

Kumar and Sharma (2019) – Customer Satisfaction and AI-Based Service Tools
Kumar and Sharma (2019) focused on customer satisfaction levels associated with AI-based service tools. Their findings revealed that ease of use and accuracy of responses were the most influential factors affecting satisfaction. The study also noted that dissatisfaction arose when AI tools failed to understand user intent. Appreciated 24/7 availability but still preferred human interaction for complex issues.

Patel and Mehta (2021) – Trust and Reliability in AI-Powered Assistants
Patel and Mehta (2021) investigated the role of trust and reliability in customer interactions with AI-powered assistants. Their research showed that customers were more satisfied when AI tools provided consist and reliable information. Concerns regarding data privacy and security were also highlighted as critical issues.

IMPORTANCE OF THE STUDY

This study is important as it provides a deeper understanding of customer satisfaction towards AI-powered assistant tools used in various service sectors. It helps identify the key factors that influence customer perceptions, such as ease of use, accuracy, responsiveness, and reliability. The findings enable organizations to evaluate the effectiveness of AI assistants in meeting customer expectations. The study also highlights existing challenges, including lack of emotional intelligence and limited problem-solving capabilities. By analysing customer feedback, organizations can improve AI system design and functionality. The research supports better decision-making regarding the adoption and enhancement of AI technologies. It contributes valuable insights to academic research on artificial intelligence and customer behaviour. Overall, the study assists businesses in improving service quality, customer experience, and long-term customer satisfaction.

SCOPE OF THE STUDY

The scope of the study is limited to analysing customer satisfaction towards AI-powered assistant tools used in service-related applications. It focuses on users who interact with AI assistants for customer support, information retrieval, and basic problem-solving. The study examines key factors such as ease of use, accuracy, responsiveness, reliability, and personalization. It considers customer perceptions and experiences rather than technical performance of AI systems. The research is confined to a specific sample size and time period. The findings may not be generalized to all industries or advanced AI applications. The study excludes internal organizational perspectives and focuses only on end-user satisfaction. Overall, the scope provides insights into user attitudes toward AI-powered assistant tools.

OBJECTIVES OF THE STUDY

- Identify the awareness and usage pattern of AI assistant personal tools among customers
- To examine the key factors influencing customer satisfaction
- To study the problem or challenges faced by users while using assistant personal tools.

- To study the future and adoption intention of customers towards AI assistant personal tools. Give in paraha

DATA COLLECTION

Primary data is collected through well structured questionnaire which constraint 35 questions.

SAMPLE DESIGN

Random sampling method is used for data collection 60 customer of the user for have been taken from   as sample size for this research study.

TOOLS OF ANALYSIS

Statistics and analysis of various figures relating to the customers satisfaction are given in different statements. The information collected through the questioaries was coded SPSS 23 package has been used for analysing the data. Descriptive statistical tool such as frequency dist have been used to describe the profiles of respondents

LIMITATIONS OF THE STUDY

- The study is based on a limited sample size, which may not fully represent the entire population
- The research relies primarily on primary data collected through questionnaires/interviews, which may be subject to respondent bias.
- Time constraints restricted the depth and scope of the study.
- The study is confined to a specific geographical area, limiting the generalizability of the findings.
- Some respondents may not have provided accurate or complete information, affecting data reliability.

Table No.1
Demographics Frequency Table

Variables	Description	Frequency	Percentage
Age	Below 20	8	13.3
	21-30	26	43.3
	31-40	15	25.0
	41-50	7	11.7
	Above 50	4	6.7
	Total	**60**	**100**
Gender	Male	28	46.7
	Female	32	53.3
	Total	**60**	**100**
Educational qualification	Up to HSC	10	16.7
	UG	22	36.7
	PG	20	33.3
	Others	8	13.3
	Total	**60**	**100**
Occupation	Student	14	23.3
	Professional	16	26.7

	Self- Employed	18	30.0
	Home maker	7	11.7
	Others	5	8.3
	Total	**60**	**100**

INTERPRETATION

The table shows that the majority of respondents (43.3%) belong to the age group of 21–30 years. Female respondents constitute 53.3% of the sample. Most respondents are UG and PG degree holders, and a large proportion (30%) are self-employed. The demographic distribution indicates a balanced and diverse respondent profile for the study.

Table No:2
Overall Satisfaction Level of Respondents

Satisfaction Level	Frequency	Percentage
Highly satisfied	14	23.3
Satisfied	20	33.3
Neutral	12	20.0
Dissatisfied	9	15.0
Highly satisfied	5	8.3
Total	**60**	**100**

Table No. **2** explains the overall satisfaction level of respondents towards AI assistant personal tools. Out of the total 60 respondents, 33.3% are satisfied and 23.3% are highly satisfied, indicating that a majority of users have a positive perception of AI assistant tools. 20% of the respondents remain neutral, suggesting moderate acceptance or limited usage experience. On the other hand, 15% are dissatisfied and 8.3% are highly dissatisfied, which reflects the presence of certain issues such as accuracy errors, privacy concerns, or technical limitations.

Table No:3
Factors Influencing Customer Satisfaction

Factors	Highly Satisfied	satisfied	Neutral	Dissatisfied	Highly Dissatisfied	Total
Ease to use	18	20	12	7	3	**60**
Accuracy of responses	16	18	14	8	4	**60**
Speed and efficiency	20	17	11	8	4	**60**
Personalization features	12	16	17	10	5	**60**
Reliability and trust	15	19	14	8	4	**60**

Table No. **3** highlights the various factors influencing customer satisfaction towards AI assistant personal tools. The results show that Ease of Use and Speed & Efficiency receive the highest number of highly satisfied responses, indicating that users find AI assistant tools easy to operate and quick in delivering responses. Accuracy of Response and Reliability & Trust also record high satisfaction levels, reflecting users' confidence in the performance and dependability of these tools. However, Personalization Features show comparatively lower satisfaction, with a noticeable number of neutral and dissatisfied responses. This suggests that while users appreciate the core functionalities of AI assistants, they expect more customized

and user-specific interaction. Overall, the analysis reveals that functional efficiency and usability are the key drivers of customer satisfaction, whereas personalization remains an area requiring further improvement to enhance the overall user experience
.

Table No: 4
Problem Faced While Using AI Assistant Tools

Problems	Frequency	Percentage
Incorrect responses	18	30.0
Privacy concerns	14	23.3
Limited personalization	12	20.0
Technical issues	10	16.7
No major issues	6	10.0
Total	**60**	**100**

Table No. 4 shows the problems faced by respondents while using AI assistant personal tools. The majority of respondents (30%) reported incorrect responses as the main problem. Privacy concerns were faced by 23.3% of users, followed by limited personalization (20%) and technical issues (16.7%). Only 10% of the respondents reported that they faced no major issues. This indicates that although users are generally satisfied with AI assistant tools, there are certain problems that need improvement, especially in terms of accuracy, privacy, and personalization.

Table No:5
Age And Overall Satisfaction Level of Respondents (Chi-Square Test)

Test	Value
Pearson Chi-Square	9.84
Degree of Freedom(df)	16
Asymptotic Signature	0.87
Level of Significance	0.05
Result	**Not Significant**

Table No. 5 shows that there is no significant relationship between the age of the respondents and their level of satisfaction towards AI assistant personal tools. Since the p-value is greater than 0.05, age does not influence customer satisfaction. Users of all age groups are similarly satisfied with AI assistant personal tools.

CONCLUSION

The study concludes that AI assistant personal tools are widely accepted and show a high level of customer satisfaction. Users are particularly satisfied with their ease of use, speed, accuracy, and reliability. These tools positively influence productivity, decision-making, and overall user experience. With further improvements in personalization, data security, and contextual accuracy, AI assistant tools are likely to achieve greater adoption and sustained usage among customers.

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A STUDY ON BRANDS USE MEMES TO CONNECT WITH YOUNGER AUDIENCES

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ABSTRACT

In the digital era, social media has transformed the way brands communicate with consumers, especially younger audiences such as Generation Z and Millennials. Meme marketing has emerged as a powerful and cost-effective promotional tool that uses humour, relatability, and popular internet culture to engage users. This study titled "Meme Marketing & Me: A Study on How Brands Use Memes to Connect with Younger Audiences" examines the effectiveness of meme-based marketing strategies in influencing brand awareness, engagement, and consumer perception among young consumers. The research focuses on how memes help brands create emotional connections, enhance brand personality, and encourage social sharing. Data is collected through surveys and social media behaviour analysis of young users. The study concludes that meme marketing, when used appropriately, is an effective communication strategy for brands targeting younger audiences in the competitive digital marketplace.

KEYWORDS: Meme marketing, Social Media marketing, Brand engagement, younger audiences, Consumer Perception.

INTRODUCTION

In recent years, the rapid growth of digital platforms and social networking sites has significantly changed the way brands communicate with consumers. Younger audiences, especially Generation Z (Gen Z) and Millennials , spend a considerable amount of time on Social Media Platforms such as Instagram, Twitter (X), Facebook, and YouTube. Traditional advertising methods are often perceived as intrusive and less engaging by these audience.

One such emerging strategy is Meme Marketing . Memes are humorous, relatable, and culturally relevant digital content that spread rapidly across the internet. Brands use memes to communicate messages in a light-hearted manner, making their content more shareable and engaging. This study titled "Meme Marketing & Me: A Study on How Brands Use Memes to Connect with Younger Audiences" aims to understand how meme-based content influences

Brand Engagement, Brand Awareness , and Consumer Perception among young consumers. The study also examines whether meme marketing helps brands appear more relatable and approachable in the digital space.

Concept of meme marketing

The core concept of meme marketing lies in relatability, timeliness, and virality. Memes often reflect everyday experiences, emotions, and social trends that resonate strongly with Younger Audiences . When brands successfully integrate memes into their Digital Marketing strategies, they can enhance Brand Personality and encourage User Engagement such as likes, shares, comments, and reposts. Therefore, brands must understand audience preferences, cultural sensitivity, and current trends to use meme marketing effectively. This study explores how brands balance creativity and strategy in meme marketing to build meaningful connections with younger audiences.

SIGNIFICANCE OF THE STUDY

This study is significant as it highlights the growing importance of Meme Marketing as a modern promotional strategy in the digital era. Younger audiences, particularly Generation Z (Gen Z) and Millennials , are highly active on Social Media Platforms and respond more positively to creative and relatable content than to traditional advertising. Understanding how memes influence Brand Engagement and Consumer Perception (helps marketers design more effective communication strategies.

The study provides valuable insights for Brand Managers and Digital Marketers on how meme-based content can enhance Brand Awareness , improve Brand Personality , and increase User Engagement . It also helps brands avoid the misuse of memes that may harm Brand Image.

SCOPE OF THE STUDY

The scope of this study is limited to analysing the role of Meme marketing in connecting brands with Younger Audiences, specifically Gen Z and Millennials. The study does not include traditional advertising or older age groups. It is primarily confined to consumer responses and does not deeply analyse technical content creation processes or long-term financial outcomes.

STATEMENT OF THE PROBLEM

With the rapid expansion of social media platform, brands are constantly searching for innovative ways to attract and engage younger audiences, particularly generation Z and millennials. Traditional adverting methods are increasingly viewed as repetitive, intrusive, and less relatable by these audiences. As a result, meme marketing has emerged as a popular digital communication strategy due to its humorous, relatable and viral nature. However, despite its growing usage, many brands face challenges in effectively using memes to create meaningful connections with younger consumers. Not all the memes – based campaigns succeed and poorly designed, or culturally insensitive memes can negatively impact bran image and consumer perception.

OBJECTIVES OF THE STUDY

Primary objectives

To analyse how meme marketing is used by brands to connect with younger audiences, particularly generation Z and millennials, on social media platforms.

Secondary objectives

- To examine the level of awareness of meme-based brand content among younger audiences.
- To study the impact of memes marketing on brand engagement such as likes, shares, comments and reposts.
- To analyse how humour, relatability and creativity in memes influence consumer perception.

- To examine the risks associated with inappropriate or irrelevant memes on brand image.

LIMITATIONS OF THE STUDY

- The study is limited to 50 respondents, all of whom are Younger Audiences (YA), mainly Generation Z (GZ) and Millennials (MLN), and does not include older age groups.
- The sample size is limited, which may not fully represent the entire population of social media users.
- Responses are based on self-reported opinions, which may be influenced by personal bias or mood of respondents.
- Rapid changes in meme trends and online culture may affect the relevance of findings over time.
- The study does not measure the long-term impact of meme marketing on actual purchase behaviour.

REVIEW OF LITERATURE

- **Javorik (2025) -** This study shows how brands use memes to reach Gen Z on social media. It found that Gen Z likes memes but often can't tell when a meme hides a brand message. This means brands must make meme ads clear yet fun to better connect with younger users
- **Bowo, Anisah & Marthalia (2024) -**This research looked at meme marketing and Gen Z behaviour. It found that meme traits like humours, easy copying, and relevance help memes spread fast. Humours and unique formats help brands get noticed and shared by young audiences online.
- **Rana (2025) -** This paper explains how meme and trend-based marketing boosts brand recall and purchase intent in Gen Z. It shows memes make brands feel real and relatable, and humours helps build trust and cultural links with younger consumers.
- **Borah (2025) -** This study reviewed how meme marketing affects Gen Z's brand view. It says memes grab attention because they are funny and relevant. But if memes feel fake or irrelevant, young people may dislike the brand. It uses identity and cultural theories to explain why memes work.
- **Rolando (2024) -** This review of many studies found memes help brands get viral engagement and strong online ties with young audiences. It shows that meme marketing works best when it fits culture and gives shared fun and emotion.
- **Generic Meme Effect on Engagement (2025) -** A research on meme marketing's impact on brand engagement & behaviour shows memes help brands get likes, shares, and comments from young users. This increases brand visibility and can lead to more action like app visits and purchases

RESEARCH METHODOLOGY

The study adopts a descriptive research design to analyse the role of Meme Marketing in connecting brands with Younger Audiences . The design helps in understanding perceptions, attitudes, and engagement levels of Generation Z and Millennials toward meme-based brand communication.

Area of the Study

The study is conducted in an urban setting, focusing on young social media users who are actively exposed to branded memes on Social Media Channels such as Instagram, Twitter (X), and Facebook. Data was collected using a structured questionnaire from 50 younger audience (students) in urban areas.

Sample Size

For the present study on Meme Marketing and its impact on Younger Audiences , a sample size of 50 respondents was selected. The respondents include Generation Z and

Millennials aged between 18–30 years, who are active users of Social Media Platforms. The selected sample size was considered adequate to collect relevant data and to understand consumer perceptions, engagement, and attitudes toward meme-based brand communication within the given time and resource constraints.

Source of data

In this study the primary, Questionnaire and secondary data are used:

- **Primary Data**

  The Primary Data was collected through a structured questionnaire administered to younger audience , specifically Generation Z (GZ) and Millennials. While 50 respondents filled out the questionnaire, all their doubts were clarified to ensure accurate response.

- **Questionnaire**

  The questionnaire consist of 20 questions relevant designed to capture data about work - Meme Marketing , Younger Audiences ,Brand Engagement ,Consumer Perception and brand Image.

- **Secondary Data**

  The Secondary Data was collected from various published and online sources such as research journals , books and e-books , marketing reports , web articles , and credible websites related to Digital Marketing and Social Media Marketing .

Sampling Method

The study adopts Convenience Sampling as the Sampling Method to select respondents for the research. Convenience Sampling enables the researcher to collect relevant data efficiently from respondents who are familiar with Meme Marketing

Tools Used for Data Analysis

The data collected for the study on Meme Marketing (MM) and its impact on Younger Audiences was analysed using the following tools and statistical tests:

Chi-Square Test (χ^2) :

Applied to test the association between meme marketing exposure and brand engagement among younger audience.

Correlation Analysis :

Used to examine the relationship between meme marketing and variables like brand awareness, consumer perception ,and purchase intention.

HYPOTHESIS

Null Hypotheses (H_0)

H_{01}: There is no significant relationship between Meme Marketing and Brand Engagement among Younger Audiences.

H_{02}: MM does not significantly influence Brand Awareness (BA) of brands among younger audience.

Alternative Hypotheses (H_1)

H_{01}: There is a significant relationship between meme marketing and brand engagement among younger audience.

H_{02}: MM significantly influences brand awareness of brands among younger audience.

Table 1

Effectiveness of the brand memes among the younger audience

Hypothesis

(H_0) : There is no significant relationship between Meme Marketing and Brand Engagement among Younger Audiences.

Hypothesis:

(H_1) : There is a significant relationship between meme marketing and brand engagement among younger audience

Effectiveness of the brand memes among the younger audience		No. of the Respondents	Percent
Valid	Very effective	11	22.0
	Effective	23	46.0
	Somewhat effective	16	32.0
	Total	50	100.0

Inference

Among them, 22% of the respondents are very effective in brand memes among younger audience, 46% of the respondents are said effective, 32% of the respondents are said somewhat effective.

Table 2
Effectiveness of the brand memes among the younger audience – Chi-square tests

Test	Value	df	Asymp. sig(2-sided)
Pearson chi-square	6.120	2	0.047
Likelihood ratio	6.354	2	0.042
N of valid cases	50	-	-

Table – III
Result of Chi-Square Test

Factors	Calculated value	Table value	Level of significance	Accepted/ rejected
Meme marketing and brand engagement	0.92	3.84	5% (0.05)	Accepted

Result & interpretation

It is observed that the calculated value of the Chi-Square test (0.92) is less than the table value (3.84) at the 5% level of significance.

Hence, the Null Hypothesis (H_0) is accepted.

RESEARCH GAP

Although several studies have examined digital marketing and social media marketing strategies, limited research has specifically focused on meme marketing as a distinct communication tool used by brands to connect with younger audiences. Existing literature mainly emphasizes general engagement metrics such as likes and shares, while less attention is given to how memes contribute to brand community building, emotional connection, and brand relatability. Furthermore, there is a lack of empirical studies that analyse consumer perception of branded memes in the Indian context. This study attempts to bridge these gaps by exploring the role of meme marketing in enhancing brand engagement and community connection among younger audiences.

FINDINGS OF THE STUDY

The study reveals that meme marketing is widely noticed and positively received by younger audiences, particularly Generation Z and Millennials, on social media platforms. Most respondents felt that memes make brand communication more relatable, entertaining, and engaging than traditional advertisements. The findings indicate that humorous and culturally relevant memes significantly improve brand awareness and encourage user engagement such

as likes, shares, and comments. The chi-square test results also show a significant relationship between meme culture and brand community building, suggesting that memes help brands create a sense of belonging among young consumers. Overall, the study finds that meme marketing is an effective tool for brands to connect emotionally with younger audiences when used appropriately and creatively.

SUGGESTION

- Brands should use memes that are relevant, timely, and culturally appropriate to avoid negative perception.
- Meme content should align with the brand personality and values.
- Marketers should focus on quality and creativity rather than excessive posting of memes.
- Brands should monitor audience reactions and feedback to improve meme strategies.
- Combining memes with other Digital Marketing (DM) tools can increase overall effectiveness.
- Brands should involve user-generated meme content to strengthen brand community engagement.
- Regular analysis of meme performance metrics can help brands refine their marketing strategies.

CONCLUSION

The study concludes that meme marketing is an effective and impactful digital marketing strategy for connecting brands with younger audiences, especially Generation Z and Millennials. Memes help brands communicate in a humorous, relatable, and culturally relevant manner, which increases brand awareness, engagement, and community building on social media platforms. When used appropriately, meme marketing strengthens emotional connections and enhances brand perception. Therefore, brands that understand audience preferences and current trends can successfully use memes to create meaningful and lasting relationships with younger consumers.

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AN ANALYTICAL STUDY ON THE ROLE OF ARTIFICIAL INTELLIGENCE IN DIGITAL MARKETING

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ABSTRACT

This study examines the role of Artificial Intelligence (AI) in digital marketing. AI tools such as chatbots, predictive analytics, automated content generation, programmatic advertising, and personalization tools help businesses understand customer behaviour and improve marketing performance. Primary data was collected from 100 respondents using a questionnaire, and tools like percentage analysis and descriptive statistics were used. The study finds that AI improves customer engagement, decision-making, and marketing efficiency.

Keywords: Artificial Intelligence, Digital Marketing, AI Technologies In Digital marketing, Application of AI, Future Direction.

INTRODUCTION

Artificial Intelligence (AI) has transformed many industries, and digital marketing is one of the most affected areas. Digital marketing focuses on promoting products and services through online platforms such as websites, social media, search engines, and mobile applications. With the rapid growth of digital data, marketers face challenges in understanding customer behaviour and delivering the right message at the right time. AI helps solve these challenges by analysing large amounts of data quickly and accurately. AI tools and technologies such as machine learning, chatbots, predictive analytics, and recommendation systems help businesses understand customer preferences, buying patterns, and online behaviour.

AI Technologies in Digital Marketing

- **Machine Learning (ML) -** Analyzes customer data and behavior. Helps in predicting trends, segmenting audience, and optimizing ad campaigns.
- **Natural Language Processing (NLP) -** Enables machines to understand human language. Used in chatbots, virtual assistants, sentiment analysis, and content generation.

- **Predictive Analytics -** Forecasts customer needs, sales trends, and market demands. Helps businesses make data-driven decisions.
- **Computer Vision -** Recognizes images and videos. Used in visual search, augmented reality ads, and personalized product recommendations.
- **AI-Powered Chatbots -** Provides 24/7 customer support. Enhances customer engagement and satisfaction.
- **Recommendation Systems -** Suggests products or services based on user behavior. Used in e-commerce platforms like Amazon, Netflix, and YouTube.
- **Programmatic Advertising -** Uses AI to automatically buy and optimize digital ads in real time.

Applications of AI in Digital Marketing

- **Personalized Recommendations –** AI analyzes user behavior to suggest products or content tailored to individual preferences.
- **Chatbots & Virtual Assistants –** Provide 24/7 customer support and answer queries automatically.
- **Predictive Analytics –** Forecasts trends, customer behavior, and potential sales**.**
- **Ad Targeting & Optimization –** AI selects the right audience, time, and platform for ads to maximize ROI.
- **Content Creation & Curation –** Generates or recommends content based on user interests.
- **Email Marketing Automation** – AI schedules and personalizes email campaigns for higher engagement.
- **Social Media Insights –** Monitors trends, sentiment analysis, and customer engagement on social platforms.
- **Voice & Visual Search –** Supports AI-powered search through images or voice commands.

Future Directions of AI in Digital Marketing:

- **Hyper-Personalization** – AI will create highly individualized experiences across websites, apps, and ads based on real-time behavior.
- **Voice and Visual Commerce** – More use of voice assistants and visual search for shopping and product discovery.
- **Predictive Customer Insights** – Advanced AI will forecast needs, churn, and lifetime value more accurately.
- **AI-Generated Content** – Increased use of AI for creating ads, blogs, videos, and social media posts automatically.
- **Enhanced Chatbots & Virtual Assistants** – Smarter, context-aware bots offering human-like interactions.
- **Programmatic Advertising** – Fully automated, AI-driven ad buying and optimization across platforms.
- **Emotional AI & Sentiment Analysis** – Understanding customer emotions to improve engagement and brand loyalty.
- **Integration with AR/VR Experiences** – AI-driven immersive marketing experiences in virtual and augmented reality.

LITERATURE REVIEW

Kumar, Dixit, Javalgi, and Dass (2019) studied the impact of AI on customer relationship management. Their research showed that AI tools such as chatbots, recommendation systems, and predictive analytics help companies improve customer engagement and satisfaction in digital marketing platforms.

Chaffey and Ellis-Chadwick (2020) discussed the growing importance of AI in digital marketing strategies. According to their study, AI improves targeting, segmentation, and content delivery. The authors stated that AI-driven tools help marketers reach the right audience at the right time with personalized messages.

Wedel and Kannan (2022) focused on AI-powered analytics in digital marketing. Their research concluded that AI helps marketers understand consumer behaviour patterns and predict future trends. he study emphasized that AI improves marketing efficiency and effectiveness through real-time data analysis.

Verma, Sharma, and Sheth (2023) analysed the adoption of AI tools in digital marketing by businesses. The study found that AI-based automation and personalization significantly improve customer experience and brand loyalty. The authors suggested that AI will play a dominant role in future digital marketing strategies.

Singh and Rana (2024) studied recent developments in AI-driven digital marketing. Their research highlighted the use of generative AI, machine learning, and predictive models in content creation and advertising. The study concluded that AI has become an essential component of modern digital marketing.

OBJECTIVE OF THE STUDY

The main objectives of the study are:

- To study Artificial Intelligence is used in digital marketing.
- To identify the benefits of using AI in digital marketing.
- To Analyses AI helps marketers in making better decisions.
- To know the future role of AI in digital marketing.

RESEARCH METHODOLOGY

Research methodology is the systematic procedure used to conduct the study. The present research follows a descriptive design to understand the role of Artificial Intelligence in digital marketing.

Research Design

- The study adopts a descriptive research design.
- It focuses on analyzing consumer awareness and usage of AI tools in digital marketing.
- This design helps to examine the impact of AI-driven marketing on consumer buying behavior.

Sources of Data

- **Primary Data:** Data collected using a questionnaire from people who use digital platforms.
- **Secondary Data:** Data collected from books, journals, websites, and research artical.

Sampling Method

- Sampling Technique: Convenience sampling
- Sample Size: 100 respondents
- Area of Study: Tiruchirappalli

Tools for Data Analysis

- Used to present data in terms of percentages for easy interpretation.
- Helps to show proportion of respondents for each category

SCOPE OF THE STUDY

This study focuses on the role of Artificial Intelligence in digital marketing. It examines AI applications in customer targeting, personalization, chatbots, and data analysis. The study highlights the benefits and challenges of AI in marketing. It emphasizes how AI improves marketing efficiency and customer experience. The scope is limited to marketing applications of AI.

RESEARCH GAP

Most previous studies focus on general digital marketing methods. There is limited research on AI in marketing, especially in tier-2 cities like Tiruchirappalli. Few studies analyze consumer awareness and usage of AI tools. Existing research does not highlight local consumer perspectives. This study addresses this knowledge gap.

STATEMENT OF THE PROBLEM

Artificial Intelligence is increasingly used in online promotions by businesses. Many consumers are not fully aware of AI's influence on marketing content. Marketers face challenges in selecting suitable AI tools. There is a need to understand AI's effectiveness and acceptance. This study aims to analyze these issues in the local context.

ANALYSIS AND INTERPRETATION OF DATA

Respondent's Personal Detail in Tiruchirappalli Town

Age of the Respondents

Age	No. of Respondents	Percentage
15-20	20	20%
21-25	35	35%
26-30	30	30%
31 And Above	15	15%
Total	**100**	**100%**

Source: Primary Data

The table shows that the majority of respondents 35% belong to the 21–25 age group, indicating that young adults form the largest segment of the study.

Gender of the respondents

Gender	No. of Respondents	Percentage
Male	60	60%
Female	40	40%
Total	**100**	**100%**

Source: Primary Data

The table clearly shows that the majority of the respondents are male, representing 60% out of the total 100 respondents.

Educational qualification of the respondents

Qualification	No. of Respondents	Percentage
School Level	10	10%
Diploma	15	15%
UG Degree	45	45%
PG Degree	30	30%
Total	**100**	**100%**

Source: Primary Data

The table reveals that the majority of respondents 45% are UG degree holders, indicating a well-educated respondent base.

Occupation of the respondents

Occupation	No. of Respondents	Percentage
Student	43	45%

Working Professional	33	33%
Business	14	14%
Homemaker	10	10%
Total	**100**	**100**

Source: Primary Data

The table clearly shows that the majority of the respondents are students, representing 45% out of the total 100 respondents.

Effectiveness Level of AI

Effectiveness Level	No. of Respondents	Percentage
Very Effective	75	75%
Normal	10	10%
Neutral	12	12%
Ineffective	02	02%
Very Ineffective	01	01%
Total	**100**	**100**

Source: Primary Data

The table indicates that the majority of respondents 75% rated AI as Very Effective in personalizing digital marketing content, showing strong positive perception toward AI-driven personalization

Impact of AI –Powered Tool

AI Powered Tools	No. of Respondents	Percentage
Chatbots	8	8%
Predictive Analytics	10	10%
Voice Search Optimization	20	20%
Automated Content Generation	23	23%
Programmatic Advertising	39	39%
Total	**100**	**100%**

Source: Primary Data

The table indicates that the majority of respondents 39% identified Programmatic Advertising as the most important AI-powered tool in digital marketing. This shows that most participants recognize AI as highly impactful in automated ad targeting and campaign optimization.

Familiarity with AI in Digital Marketing

Familiarity	No. of Respondents	Percentage
Very Familiar	70	70%
Somewhat Familiar	22	25%
Neutral	05	05%
Somewhat Unfamiliar	02	02%
Very Unfamiliar	01	01%
Total	**100**	**100**

Source: Primary Data

The table shows that the majority of the respondents 70% are very familiar with Artificial Intelligence in digital marketing, indicating a high level of awareness and understanding of AI among the respondents.

Role of AI in Automation Tasks in Digital Marketing

AI Automation	No. of Respondents	Percentage
Extremely Beneficial	74	74%
Beneficial	13	13%
Neutral	11	11%
Not Very Beneficial	01	01%
Not Very Beneficial at All	01	01%
Total	**100**	**100%**

Source: Primary Data

The table shows that the majority of the respondents 74% feel that AI automation is extremely beneficial, indicating a strong positive perception of AI automation among the respondents.

FINDINGS

1. Majority of the respondents (35%) belong to the 21–25 age group.
2. Most of the respondents are male (60%).
3. Majority of respondents (45%) are UG degree holders.
4. Most of the respondents are students (45%).
5. Majority of respondents (75%) feel AI is very effective in personalizing digital marketing content.
6. Most respondents (39%) believe programmatic advertising is the most impactful AI tool.
7. Majority of respondents (70%) are very familiar with AI in digital marketing.
8. Most respondents (74%) feel AI automation is extremely beneficial in digital marketing activities.

SUGGESTIONS

1. Companies should focus AI-based marketing strategies on young users
2. Training programs on AI tools should be provided to students and marketers.
3. Businesses should expand the use of AI personalization and automation tools.
4. Awareness programs can help improve AI understanding among less-familiar users.
5. More female participation should be encouraged in AI-driven digital marketing role

CONCLUSION

This study clearly highlights the significant role played by Artificial Intelligence in transforming digital marketing practices. From the analysis of primary data, it is evident that a majority of respondents are young, well-educated, and familiar with AI technologies, which shows growing awareness and acceptance of AI in digital marketing. Most respondents strongly agree that AI is very effective in personalizing content, improving customer engagement, and supporting better marketing decisions.

The findings reveal that AI tools such as chatbots, predictive analytics, recommendation systems, and automated advertising have enhanced the efficiency and effectiveness of digital marketing activities. AI enables marketers to understand customer behaviour , deliver personalized experiences, and optimize marketing campaigns in real time. The positive

response from respondents confirms that AI has a strong impact on improving customer satisfaction, brand visibility, and overall marketing performance

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A STUDY ON THE IMPACT OF STRAY ANIMALS ON TOURIST EXPERIENCE IN DINDIGUL DISTRICT

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ABSTRACT

Tourism plays a vital role in the economic and cultural development of Kodaikanal, a renowned hill station in Dindigul district, Tamil Nadu. However, the growing presence of stray animals—especially dogs, monkeys, and cattle—has raised concerns among visitors regarding safety, hygiene, and overall satisfaction. This study examines the impact of stray animals on tourist perceptions, satisfaction, safety, and behavioral intentions. Using survey data from 114 tourists and applying correlation, chi-square, and ordinal logistic regression analyses, findings reveal that while stray animals do not significantly affect general satisfaction, they strongly influence safety perceptions and fear levels, especially among families with children. Awareness of zoonotic diseases significantly heightens fear, indirectly shaping revisit intentions. The study contributes to sustainable tourism management by suggesting humane and policy-based measures for responsible stray animal control in tourist destinations.

INTRODUCTION

Tourism is a key driver of economic and social development in naturally gifted areas such as Kodaikanal. Known for its misty hills, lakes, and scenic beauty, Kodaikanal attracts a diverse tourist base each year. Yet, the growing number of stray animals around public areas, food stalls, and waste zones poses challenges to the destination's image and visitor comfort. Tourists often report unsettling encounters involving noise, aggression, and unhygienic conditions, which diminish their experience and sense of safety. Such issues also carry the risk of zoonotic infections like rabies and may harm the region's reputation across digital tourism platforms.

While some travelers express compassion for stray animals, others perceive them as a threat. Despite the evident tension between ethics and safety, minimal research has explored this issue in South Indian hill destinations. This study aims to assess how stray animal presence affects tourists' satisfaction, perceptions of safety, disease awareness, and willingness to revisit Kodaikanal.

REVIEW OF LITERATURE

Past studies suggest that stray animal visibility influences tourists' emotional and behavioral responses. The management of free-roaming animal populations presents a multifaceted challenge, intersecting public health, community ethics, and the economic imperatives of tourism. The literature establishes a critical relationship between tourist perceptions of animal welfare and a destination's appeal, which is mediated by local policy and community standards.

Diana Webster (2013) highlighted that tourists encountering animals in visible distress often experience significant negative emotions. This emotional impact was found to correlate directly with adverse economic outcomes, including diminished destination loyalty and a reduced likelihood of repeat visitation. Furthermore, these tourists were likely to engage in negative word-of-mouth, dissuading potential visitors and thereby posing a direct reputational and financial risk to the destination.

Kulakoğlu & Dilek (2024) articulated in their research conducted in Turkey demonstrated that tourists can perceive cohabitation with animals positively. This positive perception, however, was found to be contingent upon visible animal welfare standards. The visibility of interventions such as feeding stations, health management (e.g., vaccination), and population control (e.g., sterilization programs) transformed the animals' presence from a potential negative into an indicator of a compassionate and well-managed community.

Sharma & Ram (2025) in their study explored the socio political drivers of stray animal management, finding that public awareness regarding issues like rabies and population dynamics significantly shapes community disposition. This community disposition, in turn, creates the political will for local authorities to implement and fund effective, humane management policies, such as Animal Birth Control (ABC) and systematic vaccination campaigns.

Together, these studies examine stray animals and the factors shaping their impact on the tourism sector. This article provides a comprehensive analysis of key considerations at tourist destinations, focusing on tourist satisfaction, awareness, fear, and revisit intention.

OBJECTIVES

- Assess the types and frequency of stray animal encounters in Kodaikanal.
- Examine tourists' perceptions toward stray animals concerning safety and comfort.
- Evaluate the relationship between stray animals and overall tourist satisfaction.
- Analyze the connection between disease awareness, fear, and revisit intention.
- Recommend sustainable, humane, and practical management strategies.

METHODOLOGY

A quantitative descriptive design was adopted.

- Sample: 114 tourists visiting key attractions such as Kodaikanal Lake, Coaker's Walk, and Bryant Park.
- Data Collection: Structured questionnaire based on 5-point Likert scale items measuring satisfaction, safety perception, and fear levels.
- Analysis Tools: Pearson and Spearman correlations, Chi-square tests, and ordinal logistic regression (PLUM) using SPSS.

HYPOTHESES

- H1: Stray animals significantly affect overall tourist satisfaction.
- H2: Tourists with families experience greater safety concern.
- H3: Disease awareness influences fear and concern levels.
- H4: Fear and safety perceptions affect tourists' revisit intentions.

RESULTS

The statistical analysis was conducted to test the four primary hypotheses. The findings for each hypothesis are presented below.

H1: Stray Animals and Overall Satisfaction

The first hypothesis (H1) postulated a significant relationship between the presence of stray animals and overall tourist satisfaction. To test this, both Pearson's product-moment correlation (for linear relationships) and Spearman's rank-order correlation (for monotonic relationships) were employed.

The Pearson correlation yielded a weak, negative, and statistically non-significant result ($r=-0.160, p=0.089$). This indicates that no significant linear relationship exists between the variables. This finding was further confirmed by the Spearman correlation, which also showed a negligible and non-significant relationship ($\rho=-0.103, p=0.274$). Given that both p-values are well above the conventional $\alpha=.05$ threshold, the null hypothesis cannot be rejected. Therefore, H1 was not supported.

H2: Safety Concerns among Family Segments

The second hypothesis (H2) investigated whether tourists, particularly those with families, experience greater safety concerns. A Chi-square goodness-of-fit test was conducted to analyze the distribution of perceived safety.

The test revealed a highly significant result ($\chi2=26.351, df=4, p=.000$), confirming that safety perceptions were not uniformly distributed. An examination of the response frequencies indicated a polarization; while many tourists felt safe, a specific segment—those traveling with children—reported significantly heightened levels of unease and concern. This finding provides strong statistical support for H2.

H3: Disease Awareness and Fear Levels

The third hypothesis (H3) tested whether awareness of zoonotic diseases (e.g., rabies) strongly predicts the level of fear tourists experience around stray animals. A Chi-square test of association was performed.

The analysis returned a highly significant result ($\chi2=114.0, df=3, p=.000$), indicating a powerful association between disease awareness and fear. The cross tabulation data was stark: a large majority (76%) of respondents who self-identified as "aware" of potential diseases reported experiencing "significant or extreme fear." Conversely, tourists who were "unaware" did not report these levels of fear. This demonstrates that awareness is a critical predictor of fear, fully supporting H3.

H4: Predicting Revisit Intentions

The final hypothesis (H4) used a predictive model to determine if fear, safety perceptions, and satisfaction regarding strays affect tourists' revisit intentions. An Ordinal Logistic Regression was conducted.

The overall model was statistically significant ($\chi2=75.38, p<.001$) and demonstrated substantial explanatory power, accounting for 51.4% of the variance in revisit intention (Nagelkerke $R2=0.514$).

An analysis of the individual predictors revealed a complex relationship:

- **Satisfaction (re: stray animals):** This was a strong, significant negative predictor ($\beta=-1.394, p=.000$). This indicates that as a tourist's dissatisfaction with the stray animal situation increases, their likelihood of revisiting the destination significantly decreases.

- **Fear (due to disease awareness):** This was a significant positive predictor ($\beta=0.591, p=.000$). Counter-intuitively, tourists who reported higher levels of fear were more likely to express an intention to revisit.

- **Perceived Safety:** This variable was not a significant predictor of revisit intention in the model ($\beta=0.224, p=.203$).

- Given these results, H4 was partially supported. Satisfaction with the specific issue of stray animals is a key driver for not returning, while general safety perception is not.

DISCUSSION

The findings of this study reveal a nuanced relationship between the presence of free-roaming animals and the tourist experience. The non-support of H1 is a crucial finding, suggesting that stray animals do not function as a primary detractor from overall tourist satisfaction. Tourists appear to compartmentalize this issue; it is a background factor, not a primary driver of their aggregate trip evaluation.

However, the strong support for H2 and H3 clarifies that this lack of impact on overall satisfaction does not imply a lack of concern. The data shows the impact is concentrated on the more specific, emotional domains of safety and fear. The support for H2 ($\chi2=26.351,p=.000$) highlights that for specific segments, particularly families, the presence of strays creates significant unease. This suggests that while a solo tourist may disregard the animals, a tourist with children perceives them as a tangible risk.

The strong support for H3 ($\chi2=114.0,p=.000$) provides the mechanism for this fear: it is overwhelmingly driven by cognition (disease awareness) rather than just the animals' behavior. The fact that 76% of "aware" tourists felt significant fear indicates that information about public health risks (like rabies) is the primary lens through which these human-animal interactions are judged.

The partial support for H4 provides the most complex insights for destination management. The model's high explanatory power confirms these factors are critical in predicting behavioral intentions. The finding that perceived safety was insignificant ($p=.203$) while satisfaction with the stray situation was highly significant.

Most notably, the positive link between fear and revisit intention ($\beta=0.591$) is a paradox. This does not suggest tourists enjoy being afraid. Rather, as H3 showed, "fear" is a proxy for "awareness." This finding suggests that tourists who are aware of the risks are not necessarily avoiding the destination. Instead, this awareness may foster safer behavioral adjustments (e.g., avoiding contact, vigilance) while allowing them to maintain their emotional attachment to the destination. The aware tourist is cautious, not repelled.

In conclusion, this research demonstrates that stray animals primarily affect the specific domains of perceived safety and emotional comfort, which are amplified by disease awareness. Destination loyalty is threatened not by the animals' presence itself, but by tourist dissatisfaction with their management.

CONCLUSION

This study concludes that the impact of free-roaming animal populations on the tourist experience is far more nuanced than a simple negative correlation. The findings demonstrate that the presence of stray animals does not, in itself, significantly diminish overall tourist satisfaction. Tourists appear capable of compartmentalizing this issue from their aggregate evaluation of a destination.

The primary impact of stray animals is concentrated on the specific psychological domains of perceived safety and emotional comfort. The data strongly supports that these feelings are not arbitrary; fear is potently and directly driven by a tourist's cognitive awareness of zoonotic disease risks like rabies. Tourists who were unaware of these health risks reported no fear, while over 76% of those who were aware reported significant or extreme fear.

The most critical implications for destination management arise from the predictors of destination loyalty. This study found that a tourist's general "perceived safety" was not a significant predictor of their intention to revisit. Instead, the most significant factor driving a negative revisit intention was a tourist's dissatisfaction with the stray animal situation. This

suggests that tourists are not penalizing the destination for the presence of animals, but for the perceived failure to manage them.

Paradoxically, fear itself as a proxy for disease awareness was positively associated with revisit intent. This counterintuitive finding suggests that informed (and therefore fearful) tourists may not be avoiding the destination. Instead, they likely adopt cautious, adaptive behaviors, reflecting a nuanced relationship with the destination that is not captured by simple avoidance.

RECOMMENDATIONS

- Implement structured stray population management (e.g., sterilization, vaccination).
- Train local vendors and guides in ethical waste disposal.
- Introduce awareness posters explaining disease prevention and responsible behavior around animals.
- Collaborate with NGOs for humane animal control.
- Promote Kodaikanal as a "safe and ethical destination" via official tourism channels.

LIMITATIONS AND FUTURE SCOPE

The study covers only Kodaikanal and uses convenience sampling during a short period. Future research can employ longitudinal and comparative designs across tourist regions to enhance generalizability.

Managerial Implications

For tourism managers and policymakers:

- Stray animal population directly influences perceived destination hygiene.
- Integrating animal welfare initiatives into destination branding enhances reputation.
- Collaboration between municipal authorities and tourism boards ensures ethically aligned management strategies.

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AN ANALYSIS OF COST STRUCTURES IN MAJOR ELECTRICITY DISTRIBUTION UTILITIES IN INDIA

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ABSTRACT

The electric distribution is a state level agenda and each state has their own policy on the system. Each state has a big electricity distribution network. They are working with an intention to provide the service to common people. The objective of the study is to measure the level of expenditure made by the selected leading electricity distribution companies and to compare the level of expenditure made between the companies. The study has been carried out at India level. Hence based on the volume of sales, 15 leading electricity distribution companies in various states have been considered as sample. The secondary data related to the expenditures made by the companies is collected through their audited annual reports from the financial year 2017-18 to 2021-2022. The expenses ratios are calculated by comparing with the total revenue of the companies during the study period. For the purpose of comparing between the companies, average contribution of the expenses to the total revenue during the period is calculated. The study of the expenditure of leading electricity companies is important for informed policy decisions. Governments and regulators around the world are increasingly concerned about energy security, sustainability, and affordability. By understanding the expenditure patterns of these companies, policymakers can make informed decisions on issues such as energy subsidies, regulations and incentives for renewable energy. This can help promote a more sustainable and affordable energy system, benefiting consumers and the wider economy.

KEYWORDS: Electricity Distribution Utilities in India, Cost Structure in Electricity Distribution.

INTRODUCTION

Households, as well as business and industry, have grown more reliant on electricity over time. The need for power in the agricultural sector has also expanded along with the use of ground water irrigation through electric pump sets. The distribution of energy demand across consumer segments differs from one place to another depending on the local economy, industry, and demographic makeup. As a result, the financial data of various electricity utilities display varying patterns of expenditure as compared to each other and to their income.

Electricity distribution system in India

- **Generation:** Electricity in India is primarily generated by thermal power plants, which use coal, gas, or oil as fuel. The country also has a significant capacity for renewable energy generation, such as wind, solar, and hydropower.
- **Transmission:** The electricity generated at power plants is transmitted to various distribution centers through a network of high-voltage transmission lines.
- **Distribution:** The distribution of electricity to consumers is managed by state-owned and private distribution companies (discoms). These discoms are responsible for the distribution of electricity through a network of low and medium-voltage distribution lines. The consumers of electricity in India are categorized into various categories, such as residential, commercial, industrial, and agricultural. Each category has a different tariff structure, and the rates are determined by the regulatory bodies. India has a vast and complex electricity distribution system that serves more than 1.3 billion people across the country. The system is operated and managed by several state-owned and private discoms that are responsible for the distribution and supply of electricity to consumers.

Leading Electricity distribution companies in India

The following are the leading companies in power distribution in various states in India based on their sales volume (Companies engaged in distribution activity alone only is considered for meaningful comparison):

1	BSES Rajdhani Power Ltd. (BRPL), Delhi	8	Madhya Pradesh Pashchim Kshetra Vidyut Vitaran Company Ltd. (MSEKVVCL), Madhya Pradesh
2	Dakshin Haryana Bijli Vitran Nigam Ltd.(DHBVNL), Haryana	9	Maharashtra State Electricity Distribution Company Ltd. (MSEDCL), Maharashtra
3	West Bengal State Electricity Distribution Company Ltd. (WBEDCL), West Bengal	10	Southern Power Distribution Company of Telengana Ltd. (SPDCTL), Telengana
4	Pashchimanchal Vidyut Vitran Nigam Ltd (PVVNL), Uttar Pradesh	11	Southern Power Distribution Company of A.P. Ltd. (SPDCAPL), Andhra Pradesh
5	Uttarakhand Power Corporation Ltd (UPCL), Uttarakhand	12	Bangalore Electricity Supply Company Ltd. (BESCOM), Karnataka
6	Chhattisgarh State Power Distribution Company Limited (CSPDCL), Chhattisgarh	13	South Bihar Power Distribution Company Ltd. (SBPDCL), Bihar
7	Paschim Gujarat Vij Company Ltd. (PGVCL), Gujarat	14	Jharkhand Bijli Vitran Nigam Ltd. (JBVNL), Jhakhand

Major costs of electricity distribution

Cost of Power Purchase: Power purchase cost is the major component of the overall cost structure of discoms in India. It refers to the cost incurred by discoms to purchase electricity from various sources such as generation companies, captive power plants, and renewable energy producers. One of the biggest challenges faced by discoms in India is the high power purchase cost, which has a significant impact on their financial viability, sometimes leading to huge losses, mounting debts and thus to financial crisis.

Employee Benefit Expenses: Employee benefit expenses are another significant cost component for discoms in India. One of the primary reasons for high employee benefit expenses is the legacy issues faced by discoms in India due to inheritance of large workforce from erstwhile Electricity Boards. The benefits provided to employees are often determined by collective bargaining agreements and statutory requirements, which are not easily modifiable.

Finance cost: Most of the electricity distribution companies are running in financial crisis. The cost of the finance is very high. They are paid in the form of interest and related expenses.

SIGNIFICANCE OF THE STUDY

Governments around the world are increasingly concerned about energy security, sustainability, and affordability. The paper focused in the in-debt analysis of the changes in the selected financial variables of discoms in India. The expenditure of these companies is a reflection of their financial health, operational efficiency, and impact on the environment and society. The study of expenditure patterns of leading discoms is essential to identify where these companies are spending the most money, thus helping to identify the areas where their cost can be reduced and competitiveness can be enhanced through informed policy decisions on issues such as regulations, energy subsidies, accounting practices and disclosure policies.

OBJECTIVES

The study has been made with the following objectives

- To measure the level of different expenditures made by the selected leading electricity distribution companies
- To compare the level of expenditure made between the companies

METHODOLOGY

Each state in India has a big electricity distribution network. The leading companies involved only in distribution of electricity from various states has been considered as sample. Based on the volume of sales, the top 14 companies in the country has been selected. The secondary data related to the expenditure incurred by the companies is collected from their audited annual reports for the period from the financial year 2017-18 to 2021-2022. The expenses ratios are calculated by comparing with the total revenue of the companies during the study period. For comparison between the companies, average contribution of the expenses to the total revenue during the period is calculated in percentage.

RESULT AND DISCUSSION

The expenditure of the selected companies are classified into Cost of Power Purchase, Employee Benefit Expenses, Finance Cost and Depreciation and Amortisation Expenses. As stated in the objectives, the study is focusing on the level of the expenditure made in each company and a comparison of the cost across the companies are analysed.

Expenditure of the electricity distribution companies

The extent of expenditure incurred by the selected 14 sample discoms is calculated by computing their percentage on the total revenue for the study period. The following tables show the contribution of the cost to the total revenue.

Table 1
Expenditure made by the selected companies (values in %)

Items of Expenditure	BSES Rajdhani Power Ltd. (BRPL)					Dakshin Haryana Bijli Vitran Nigam Ltd.(DHBVNL)				
	BRPL					DHBVNL				
	Delhi					Haryana				
	2017-18	2018-19	2019-20	2020-21	2021-22	2017-18	2018-19	2019-20	2020-21	2021-22
Cost of Power Purchase	72.72	72.76	78.99	77.95	71.14	84.05	87.41	86.60	84.22	85.15
Employee Benefit Expenses	5.55	4.91	4.97	6.08	5.33	7.94	6.50	7.71	7.63	8.11
Finance Cost	13.79	11.34	12.27	16.13	10.32	4.61	2.95	1.99	1.97	1.66
Depreciation and Amortisation Expenses	3.13	2.98	3.33	4.09	3.79	1.33	1.31	1.47	3.00	2.67

Other Expenses	4.62	4.78	5.01	5.57	4.88	1.27	1.31	1.58	1.69	1.45
Total Expenditure	99.81	96.77	104.57	109.82	95.46	99.21	99.48	99.36	98.51	99.04
Total Income	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The above table indicates that cost of the power purchase is contributing more (72%) to the total revenue for the BSES Rajdhani Power Ltd. (BRPL) during the study period. The cost of finance is more than 10% for all the years. Total expenditure of the company exceeds the total revenue in the year 2019-20 and 2020-21. Again the total expenditure controlled in the year 2021-2022.

Financial statement of the Dakshin Haryana Bijli Vitran Nigam Ltd.(DHBVNL) shows that major cost is incurred for procuring the power (more than 84%) every year. Employee benefit expenses is the second one (around 7%). This company managed the total expenditure below the total revenue during the study period. The finance cost is well below 4%.

Table 2
Expenditure made by the selected companies (values in %)

Items of Expenditure	West Bengal State Electricity Distribution Company Ltd.					Pashchimanchal Vidyut Vitran Nigam Ltd (PVVNL)				
	WBSEDCL					PVVNL				
	West Bengal					Uttar Pradesh				
	2017-18	2018-19	2019-20	2020-21	2021-22	2017-18	2018-19	2019-20	2020-21	2021-22
Cost of Power Purchase	81.30	84.46	84.51	93.08	72.40	94.60	92.85	90.27	101.19	83.69
Employee Benefit Expenses	5.31	4.70	6.96	7.66	7.19	1.54	2.10	2.36	2.09	2.24
Finance Cost	7.77	6.70	6.11	6.98	6.39	3.46	4.45	4.75	6.37	6.58
Depreciation and Amortisation Expenses	4.67	4.29	4.11	4.75	4.34	1.71	1.69	1.93	2.74	2.68
Other Expenses	5.89	5.76	5.82	6.15	5.92	8.13	5.83	5.88	6.03	6.33
Total Expenditure	104.95	105.91	107.50	118.62	96.24	109.45	106.91	105.19	118.41	101.52
Total Income	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

West Bengal State Electricity Distribution Company Ltd. (WBSEDCL) spends around 82% of the total revenue for purchasing the power. Employee cost and fiancé cost are around 7%. But the total expenditure exceeds the total revenue except in the last year. The profitability of the Company is negative except in 2021-22.

The cost of the Pashchimanchal Vidyut Vitran Nigam Ltd (PVVNL) reveals that more than 90% of the revenue is spent for the purchase of the power. In the year 2020-2021, it exceeds the total revenue (101.19). The employee benefit cost and the finance cost are comparatively less. But the overall the financial results shows that the company is spending more than the total revenue every year (from 101% to 118%) indicating a negative profitability.

Table 3
Expenditure made by the selected companies (values in %)

Items of Expenditure	Uttarakhand Power Corporation Ltd.					Chhattisgarh State Power Distribution Company Limited				
	UPCL					CSPDCL				
	Uttarakhand					Chhattisgarh				
	2017-18	2018-19	2019-20	2020-21	2021-22	2017-18	2018-19	2019-20	2020-21	2021-22
Cost of Power Purchase	88.17	96.28	93.03	85.22	83.72	84.63	83.31	89.41	88.75	91.27
Employee Benefit Expenses	4.97	5.41	4.88	5.44	4.53	9.23	8.82	8.31	8.11	7.38
Finance Cost	3.55	3.38	3.14	2.90	2.72	3.19	3.15	3.28	2.72	2.37
Depreciation and Amortisation Expenses	2.72	2.88	3.03	3.52	3.39	1.81	2.07	2.45	2.68	2.70
Other Expenses	4.80	4.75	4.99	3.74	3.93	2.38	3.12	3.86	3.16	3.10
Total Expenditure	104.21	112.70	109.06	100.82	98.30	101.23	100.47	107.31	105.41	106.82
Total Income	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Uttarakhand Power Corporation Ltd. Spends more than 83% of the total revenue towards the purchase of the power upto 96%. Employee benefit expenses are more than 4% and the finance cost less than 4%. But the total expenditure is more than the total revenue in all the years except in the year 2021-2022. The cost of purchase of the power consumes more of its revenue.

The cost of purchase of the power ranges from 83% to 91% to the total revenue of the Chhattisgarh State Power Distribution Company Limited. The labour cost is more than 8%. The finance cost is less than 4%. The overall expenditure is more than the total revenue for all the years considered in the study showing a negative profitability.

Table 4
Expenditure made by the selected companies (values in %)

Items of Expenditure	Paschim Gujarat Vij Company Ltd.					Madhya Pradesh Pashchim Kshetra Vidyut Vitaran Company Ltd.				
	PGVCL					MPPKVVCL				
	Gujarat					Madhya Pradesh				
	2017-18	2018-19	2019-20	2020-21	2021-22	2017-18	2018-19	2019-20	2020-21	2021-22
Cost of Power Purchase	86.34	88.76	86.45	85.74	84.96	80.18	79.25	74.36	82.88	92.88
Employee Benefit Expenses	4.73	3.71	4.15	4.63	4.80	8.18	8.82	8.71	7.36	7.95
Finance Cost	1.14	0.82	0.88	0.77	0.51	7.58	6.58	6.29	5.35	5.14
Depreciation and Amortisation Expenses	4.57	4.34	4.72	5.16	4.43	2.06	2.31	2.26	2.33	2.22

Other Expenses	2.10	2.01	2.75	2.35	2.16	4.77	7.17	1.75	1.77	4.89
Total Expenditure	98.88	99.63	98.95	98.65	96.86	102.76	104.13	93.37	99.70	113.07
Total Income	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The spending of Paschim Gujarat Vij Company Ltd. for purchase of power is more than 84% but below 90%. The employee cost and finance cost is comparatively less. The total expenditure is less than the total revenue during the study period. The lesser finance cost helps the Company to restrict the total cost below the total revenue.

Madhya Pradesh Pashchim Kshetra Vidyut Vitaran Company Ltd. has more variation in spending on the power purchase (from 74% to 93%) during the study period. But the employees' cost is more than 8% of the total revenue. Finance cost is also looking high (more than 5%). The total expenditure exceeds the total revenue in three years out of five year study period.

Table 5
Expenditure made by the selected companies (values in %)

Items of Expenditure	Maharashtra State Electricity Distribution Company Ltd. (MSEDCL)					Southern Power Distribution Company of Telengana Ltd.				
	MSEDCL					SPDCTL				
	Maharashtra					Telengana				
	2017-18	2018-19	2019-20	2020-21	2021-22	2017-18	2018-19	2019-20	2020-21	2021-22
Cost of Power Purchase	76.53	74.10	83.75	78.83	78.20	102.48	102.93	101.05	98.17	103.63
Employee Benefit Expenses	5.88	5.41	6.31	6.76	6.93	8.96	8.85	9.39	9.28	7.38
Finance Cost	8.54	5.65	5.93	7.20	5.80	4.71	5.37	6.04	7.89	8.67
Depreciation and Amortisation Expenses	4.20	3.44	3.74	4.27	3.98	3.83	3.55	4.00	4.42	4.16
Other Expenses	4.16	9.30	10.02	8.40	6.10	1.52	1.12	1.06	1.19	1.16
Total Expenditure	99.30	97.89	109.74	105.46	101.01	121.50	121.81	121.55	120.96	124.99
Total Income	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The cost of purchase of power of Maharashtra State Electricity Distribution Company Ltd. (MSEDCL) varies from 74% to 84%. The employee cost and finance cost are high (more than 5%). In the last three years, the total expenditure is more than the total revenue showing decline in financial performance.

The result of the Southern Power Distribution Company of Telengana Ltd. Depicts that the power procurement cost is more than the total revenue during the study period except in 2020-21. The labour and finance costs are also higher. The total expenditure is more than 120% of the total revenue in all the years showing poor profitability.

Table 6
Expenditure made by the selected companies (values in %)

Items of Expenditure	Southern Power Distribution Company of A.P. Ltd.					Bangalore Electricity Supply Company Ltd.				
	SPDCAPL					BESCOM				
	Andhra Pradesh					Karnataka				
	2017-18	2018-19	2019-20	2020-21	2021-22	2017-18	2018-19	2019-20	2020-21	2021-22
Cost of Power Purchase	81.18	107.53	76.15	77.00	86.89	82.38	93.00	89.35	86.11	80.99
Employee Benefit Expenses	8.11	13.78	12.85	12.82	13.13	6.05	6.78	6.99	7.46	7.28
Finance Cost	4.62	4.77	4.73	4.84	4.66	4.31	3.99	4.17	4.89	4.87
Depreciation and Amortisation Expenses	3.52	3.49	3.75	3.56	3.79	2.34	2.63	3.48	4.08	4.18
Other Expenses	2.60	2.87	2.52	1.77	1.93	1.54	2.32	2.65	3.63	4.04
Total Expenditure	100.02	132.44	100.00	99.99	110.41	96.61	108.72	106.64	106.16	101.35
Total Income	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The above table exhibits that Southern Power Distribution Company of A.P. Ltd spends more for the purchase of the power from 76% to 107%. In the year 2018-19, the cost of the power is more than the total revenue of the Company. The employee benefit expenses is also more than 12% for four years. The finance cost is more than 4%. The Company never gained revenue more than its expenditure during the study period.

The Karnataka based Bangalore Electricity Supply Company Ltd. is spending more than 80% for the procurement of power. The employee benefit cost is around 7% and the finance cost is 4%. The total expenditure is more than the total revenue of the Company for later four years which showing continuing loss.

Table 7
Expenditure made by the selected companies (values in %)

Items of Expenditure	South Bihar Power Distribution Company Ltd.					Jharkhand Bijli Vitran Nigam Ltd.				
	SBPDCL					JBVNL				
	Bihar					Jharkhand				
	2017-18	2018-19	2019-20	2020-21	2021-22	2017-18	2018-19	2019-20	2020-21	2021-22
Cost of Power Purchase	109.74	99.39	100.58	92.62	90.87	88.58	93.32	89.81	100.98	92.56
Employee Benefit Expenses	6.48	5.45	6.23	5.80	5.60	3.22	4.89	3.50	4.60	3.89
Finance Cost	2.85	2.74	2.98	3.72	5.17	0.67	1.13	5.01	7.23	7.83
Depreciation and Amortisation Expenses	3.79	4.09	5.04	5.02	4.93	6.29	8.64	12.77	18.48	19.56
Other Expenses	13.84	11.11	3.96	3.69	3.52	3.52	4.51	5.28	6.02	6.22
Total Expenditure	136.70	122.80	118.79	110.85	110.09	102.27	112.48	116.37	137.31	130.06

Total Income	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

South Bihar Power Distribution Company Ltd. of Bihar is spending more towards the purchase of the power (almost equal to total revenue). The employee cost is at 6% of the total revenue. The total expenditure of the company is greater than the total income for all the years (from 110% to 136%). But the trend shows a decline in loss.

The power purchase cost of Jharkhand Bijli Vitran Nigam Ltd. is from 88% to 100% of the total income. The labour cost is around 4% and the depreciation and amortisation expenses is upto 20% of the total income which higher than the other expenses except the cost of power purchase. The total expenditure is higher than the total income during the entire period showing continuous loss.

Comparison of the expenditure among the selected companies

The five major classes of expenditure incurred by the selected discoms is compared across the selected companies to understand the major ones influencing their profitability. The average of the percentage of the contribution of the expenditures to the total revenue is compared. The following table depicts the result.

Table 8
Comparison of the cost between the selected companies (average percentage)

Sample companies	Cost of Power Purchase	Employee Benefit Expenses	Finance Cost	Depreciation and Amortisation Expenses	Other Expenses	Total Expenditure
BRPL	74.71	5.37	12.77	3.46	4.97	101.28
DHBVNL	85.49	7.58	2.64	1.96	1.46	99.12
WBSEDCL	83.15	6.36	6.79	4.43	5.91	106.64
PVVNL	92.52	2.07	5.12	2.15	6.44	108.30
UPCL	89.28	5.05	3.14	3.11	4.44	105.02
CSPDCL	87.47	8.37	2.94	2.34	3.13	104.25
PGVCL	86.45	4.40	0.82	4.64	2.27	98.59
MPPKVVCL	81.91	8.20	6.19	2.24	4.07	102.61
MSEDCL	78.28	6.26	6.62	3.92	7.60	102.68
SPDCTL	101.65	8.77	6.54	3.99	1.21	122.16
SPDCAPL	85.75	12.14	4.72	3.62	2.34	108.57
BESCOM	86.36	6.91	4.44	3.34	2.83	103.90
SBPDCL	98.64	5.91	3.49	4.57	7.23	119.85
JBVNL	93.05	4.02	4.38	13.15	5.11	119.70

The cost of purchase of power shows that the average of the Southern Power Distribution Company of Telengana Ltd. (SPDCTL) is high (101.65). The cost is more than the total income and shows a continuous loss. South Bihar Power Distribution Company Ltd., (SBPDCL) Bihar is the next highest among the companies towards this (98.64) and Jharkhand Bijli Vitran Nigam Ltd. is the third (93.05). Other companies are spending less than these companies towards the purchase of power in terms of average percentage to the total revenue.

The employees benefit cost is more at Southern Power Distribution Company of A.P. Ltd. (SPDCAPL) at 12.14% of the total income which is significantly higher than the other companies. Next high level of spending is found with Southern Power Distribution Company of Telengana Ltd. (SPDCTL) at 8.77% and third by the Chhattisgarh State Power Distribution Company Limited (CSPDCL) at 8.37%.

BSES Rajdhani Power Ltd. (BRPL) is the leading company to spend more towards finance cost (12.77% of the total income). West Bengal State Electricity Distribution Company

Ltd. (WBSEDCL) is the second (6.79%) and the Maharashtra State Electricity Distribution Company Ltd. (MSEDCL) follows as third with 6.62% in this class of expenditure.

Jharkhand Bijli Vitran Nigam Ltd. (JBVNL) is in the first rank to provide for the depreciation and to write off the amortisation expenses among the sample companies at an average of 13.15%. Regarding the other expenses, Maharashtra State Electricity Distribution Company Ltd. (MSEDCL) stands high with 7.60% to the total income.

While analysing the total expenditure of the selected companies, it is surprised to note that 12 companies out of 14 companies, are spending more than their total income on an average. It indicates that they are running without profit and thus in financial crisis. Southern Power Distribution Company of Telengana Ltd. (SPDCTL) is spending 22% more than the total income of the company. South Bihar Power Distribution Company Ltd. (SBPDCL) and Jharkhand Bijli Vitran Nigam Ltd. (JBVNL) are other companies spending 20% more than their total income. Dakshin Haryana Bijli Vitran Nigam Ltd. (DHBVNL) and Paschim Gujarat Vij Company Ltd. (PGVCL) are the only companies spending less than their total income.

CONCLUSION

The authors concluded that the cost of power purchase directly impacts the cost structure of companies and thus is a critical determinant of the profitability of electricity distribution companies in India. When the cost of power purchase is high, it increases the overall cost of electricity distribution for discoms. Further, most of the discoms are unable to recover their cost from their customers through Tariff and is continuously incurring losses.

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PROFITABILITY ANALYSIS OF AMBUJA CEMENT COMPANY: AN EMPIRICAL STUDY

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ABSTRACT

Ambuja Cements Limited is a major Indian manufacturer of cement and concrete products, known for its focus on sustainability and innovation. It is a key part of the Adani Group's building materials business, which is the second-largest cement producer in India by capacity. This paper emphasis the profitability, sales and assets growth and earning capacity and corporate social responsibility of Ambuja cement during the years 2020-21 to 2024-25. Sales volume has been in increasing trend. It is evidenced that the profitability performance fluctuated, internal fund is increasing trend. It has concentrated in corporate social responsibility in a better way.

KEY WORDS: Profitability, Sales Volume , Corporate Social Responsibility, Assets Growth

INTRODUCTION

India's cement industry show robust volume growth driven by infrastructure & housing, massive capacity expansion plans, a strong push for sustainability (green cement, carbon capture), increased automation, and consolidation, with blended cement dominating demand. The sector is growing rapidly, with projections reaching 850 MTPA capacity by 2030, underpinned by government spending and urbanization. Ambuja Cements Limited is a major Indian manufacturer of cement and concrete products, known for its focus on sustainability and innovation. It is a key part of the Adani Group's building materials business, which is the second-largest cement producer in India by capacity.

Ownership: Acquired by the Adani Group in May 2022 from Holcim Limited, it operates as a part of the Adani Cement business, which also includes ACC Limited. Capacity & Infrastructure: The company has a significant pan-India presence with a consolidated grey cement capacity of approximately 106.45 MTPA as of late 2025. Its network includes integrated manufacturing plants, grinding units, bulk cement terminals, and a fleet of captive

ships. Headquarters: The company is headquartered in Mumbai, Maharashtra, with its registered office in Ahmedabad, Gujarat.Leadership: Key executives include Mr. Gautam Adani (Chairman), Mr. Ajay Kapur (Managing Director), and Mr. Vinod Bahety (CEO & Whole-Time Director).

Products and Offerings: Ambuja Cements provides a broad range of building materials and solutions tailored for various applications, from individual home construction to large infrastructure projects.Portland Cement (OPC): A general-purpose high-strength cement.Portland Pozzolana Cement (PPC): Known for its superior durability and water-repellent properties, ideal for a variety of construction applications.Specialty Products: Includes Ambuja Kawach (water-repellent cement), Ambuja Cool Walls (temperature-resistant blocks), Ambuja Compocem (composite green cement), and Ambuja Railcem (for concrete railway sleepers).Ready-Mix Concrete: The company also produces and markets ready-mix concrete.

Sustainability and Innovation: Ambuja is recognized for its strong commitment to sustainable practices and has received numerous awards for its environmental initiatives. Green Energy: The company focuses on increasing its use of green power, including captive thermal power plants, waste heat recovery systems, and solar power, with a goal of meeting 60% of its power requirements through renewable sources. Decarbonization: Ambuja is one of the few large-scale cement companies globally with its net-zero goals validated by the Science Based Targets initiative (SBTi).CSR: Through the Ambuja Cement Foundation, the company is involved in community development and water management projects, aiming to create value for society.

REVIEW OF LITERATURE

Almazai (2009) in his study entitled "Analyzing Profitability Ratios of Jordanian Phosphate Mines Company (2001- 2007)" evaluated the profitability ratios by using time series analysis over the period from 2001-2007. The study constructed a theoretical model consisting of independent variables(gross profit margin, operating profit margin, net profit margin, earning per share, return on total assets, and return on equity) and dependent variable (performance of the company) to examine the relationship between the variables. The study found that there was a positive relationship between independent variables (gross profit margin, operating profit margin, net profit margin, and return on equity) and dependent variable (performance). The authors suggested that financial statement analysis must be used to reduce risk and uncertainty by using tools and techniques to evaluate and project the future performance of a firm. **Chandra, Chouhan, and Goswami (2012)** investigated the relationship between profitability and working capital analysis of information technology companies. In their study, they found a statistically significant relationship between working capital and profitability of all the selected companies. The positive direction of the relationship in all significant cases connotes that growth in working capital will result in increased profitability. **Abuzar (2004)** empirically investigated the relationship between profitability and liquidity for sample firms in Saudi Arabia. The researcher took cash gap and current ratio as a measure of liquidity. Using correlation and regression analysis, a negative relationship was investigated between liquidity and profitability, where current ratio was taken as a measure of liquidity. At the company level, it was observed that the cash gap (cash conversion cycle) is more important as a measure of liquidity than the current ratio as a measure of liquidity that affects profitability. At the industry level, it was observed that size had a significant effect on profitability. **Haslem (1968)** used operating profit ratios to measure the effect of management, size, location, and time on profitability and found that all variables significantly related to profitability. Lazaridis and **Dimitrios (2006)** investigated the relationship between corporate profitability and working capital management using listed companies on the Athens stock exchange. They discovered that a statistically significant relationship existed between

profitability and the cash conversion cycle. They concluded that the business can create profits for their companies by correctly handling the cash conversion cycle and keeping each component of the cash conversion cycle to an optimum level. **Mohamed and Abdul (2007)** also investigated the relationship between cash conversion cycle and its components by taking a sample of 94 firms listed on the Karachi Stock Exchange for a period of six years from 1999-2004. In this study, they investigated that the cash conversion cycle is negatively related to net operating profit, which is a measure of profitability. A similar relationship was observed for the collection period, inventory turnover in days, and average payment period. **Rajangam and Selvaraj (2012)** investigated the relationship between liquidity and profitability and risk and profitability. In this study, the researchers applied Spearman's Rank correlations to test the significant relationships. The study revealed that the Tamil Nadu Newsprint and Papers Limited (TNPL) maintained an overall control over the liquidity position of current assets, and all the techniques of liquidity management were satisfied during the study period. In testing of the hypotheses, the researchers observed that there was no significant relationship between liquidity and profitability and also, there was an insignificant relationship between risk and profitability.

OBJECTIVE OF THE STUDY
1. To study the sales Performance of Ambuja Cement co.,
2. To examine the profitability Performance of Ambuja Cement co.,
3. To analysis the growth of Assets and Net -Worth performance of Ambuja Cement co.,

METHODOLOGY

Secondary data has been collected through annual report of the Ambuja cement from the financial years 2021-22 to 2024-25. Ambuja cement only taken for this study. Simple random sampling method has been applied for the analysis. The sources of data taken from the annual report of the Ambuja Cement.

Statistical Tools Used: mean, standard deviation and co-efficient of variation and trend analysis have been used for the present study.

DATA ANALYSIS AND INTERPRETATION

Table 1

NET- WORTH (Rs in Cr) of Ambuja Cement

Net Worth (Rs in Cr)	Rs.in Crs.
2020-21	29098
2021-22	32499
2022-23	38757
2023-24	50843
2024-25	63811
MEAN	**43001**
SD	**12776.15**
CV(%)	**29.71**

Source: Annual Report of Ambuja cement

Table 1 , shows that the net worth performance of Ambija cement during the year 2020-21 to 2024-25. The average net worth observed as about Rs.43001 Crs. The minimum networth evidenced as Rs.29098 Crs in 2020-21 and the maximum Rs.63811 crs in 2024-25. It is increasing trend, which implies that the networth is growing year by year. The co-efficient of variation evidenced as 29.71 percent.

Table 2
Revenue From Operation of Ambuja Cement

Revenue From Operation	(Rs. In Cr)
2020-21	24516
2021-22	28965
2022-23	38937
2023-24	33160
2024-25	35045
MEAN	**32124.6**
SD	**4977.61**
CV(%)	**15.49**

Source: Annual Report of Ambuja cement

Table 2, implies that the revenue from operations of the Ambuja cement during the study period. The mean value of revenue from operation is Rs.32125 crores. It ranged between the minimum of Rs.24516 crs and the maximum of Rs.35045 crs. The co-efficient of variation shows that the stability of revenue performance is about 15.49 percent.

Table 3
Sales Volume of Ambuja cement

Sales Volume	(in MTPA)
2020-21	47
2021-22	53
2022-23	68
2023-24	58
2024-25	63
MEAN	**57.8**
SD	**7.35**
CV(%)	**12.73**

Source: Annual Report of Ambuja cement

Table 3 implies that the sales volume in Metric Tons per year of the Ambuja Cement. It is fluctuated during the study period. The average sales volume is about 57.8 metric ton per annum. The standard deviation is observed as 7.36 crore . The co-efficient of variation is 12.73 percent which implies that the stability of sales volume

Table 4
Growth Assets of Ambuja Cement

GROWTH ASSETS	(Rs. In Cr)
2020-21	39721
2021-22	45205
2022-23	51721
2023-24	65104

2024-25	80945
MEAN	**56539.2**
SD	**14856.18**
CV(%)	**26.27**

Source: Annual Report of Ambuja cement

Table 4 indicate that the growth of assets performance of Ambuja cement during the study period. It is increased year by year which implies that the company is in growing trend. The mean value of Growth of Assets ranged as Rs.56539 Crs. The minimum growth observed in 2020-21 is about Rs.39721 crs. The standard deviation is Rs.14856 crs. The co-efficient of variation observed as 26.27 percent which means that the stability growth in assets.

Table 5
EBIT of Ambuja Cement

EBIT	(Rs in Cr)
2020-21	5455
2021-22	6563
2022-23	5860
2023-24	7566
2024-25	8625
MEAN	**6813.8**
SD	**1154.57**
CV(%)	**16.94**

Source: Annual Report of Ambuja cement

Table 5, evidenced that the Earning Before Interest And Tax performance of the Ambuja cement during the study period. Is fluctuated and increased in last two years 2023-24(Rs.7566 crs) to 2024-25(Rs.8625 crs) of the study period reached the above mean value of Rs.6814. the co-efficient of variation is 16.94 percent which implies that the stability of EBIT.

Table 6
PAT *of Ambuja cement*

Profit After Tax	(Rs.In Cr)
2020-21	3107
2021-22	3711
2022-23	3024
2023-24	4735
2024-25	5158
MEAN	**3947**
SD	**860.31**
CV(%)	**21.79**

Source: Annual Report of Ambuja cement

Table 6 Shows that the profit after tax performance of the Ambuja Cement during the study period from 2020-21 to 2024-25, the PAT implies that the net profit margin of the Ambuja cement. The average PAT evidenced that Rs.3947 crore. The last two years of the

study period PAT performance above the mean value. The co-efficient of variation is observed about 21.80 percent which means that the net margin stability of Ambuja cement.

Table: 7, Earning Per Share *of Ambuja cement*

Earning Per Share	(Rs.)
2020-21	12
2021-22	14
2022-23	13
2023-24	18
2024-25	17
MEAN	**14.8**
SD	**2.31**

Source: Annual Report of Ambuja cement

Table 7, implies that the earning per share performance of the AMBUJA Cement from the year 2020-21 to 2024-25, which implies that the earing per share at the year end. It means that the net earnings divided by the total number of shares. The average EPS evidenced that the Rs.14.8, which is fluctuated during the study period.

Table 8
Average Capital Employed of AMBUJA Cement

Average Capital Employed	(Rs.in Cr)
2020-21	29457
2021-22	30799
2022-23	35628
2023-24	44800
2024-25	57327
MEAN	**39602.2**
SD	**10367.27**
CV(%)	**26.17**

Source: Annual Report of Ambuja cement

Table 8 shows that the average capital employed of the Ambuja Cement during the years 2020-21 to 2024-25 , internal capital increased year by year it is also increasing trend which implies that the depended on internal fund. The mean value of ACM IS Rs.39602 crs and the standard deviation is Rs.10367.27 crs. The co-effient of variation is about Rs.26.18 percent.

Table 9
Corporate Social Responsibility Expenses

Corporate Social Responsibility	(Rs.in Cr)
2020-21	85
2021-22	100
2022-23	118
2023-24	89
2024-25	104
MEAN	**99.2**
SD	**11.68**
CV(%)	**11.78**

Source: Annual Report of Ambuja cement

Table 9 shows that the corporate social responsibility of the Ambuja cement during the years 2020-21 to 2024-25, which means that the expenses spent for social activities . The average CSR is observed as R.99.2crores . is also fluctuated but three year reached the above average Rs.100 crores in 2021-22 , Rs.118 crs in 2022-23 and Rs.104 crores in 2024 -2025. The Standard deviation os observed as Rs.11.68 percent . the co-efficient of variation is 11.78 percent , which means that the stability in CSR spending.

Table 10
Trend Analysis Ambuja Cement

year	EBIT	PAT	EPS
2020-21	5455	3107	12
2021-22	6563	3711	14
2022-23	5860	3024	13
2023-24	7566	4735	18
2024-25	8625	5158	17

Source: Empirical Study
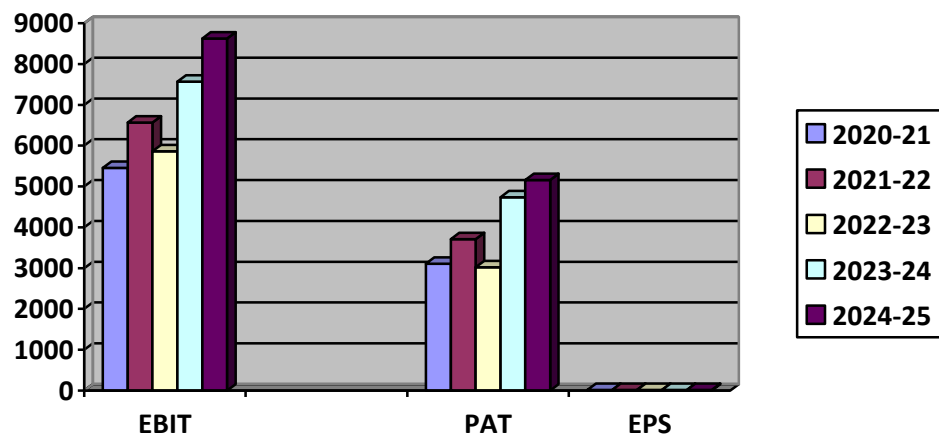
Table :11 Sales Volume *of Ambuja cement*

Sales Volume	(in MTPA)
2020-21	47
2021-22	53
2022-23	68
2023-24	58
2024-25	63

Sales in Metric Tons Per Annum

(in MTPA)
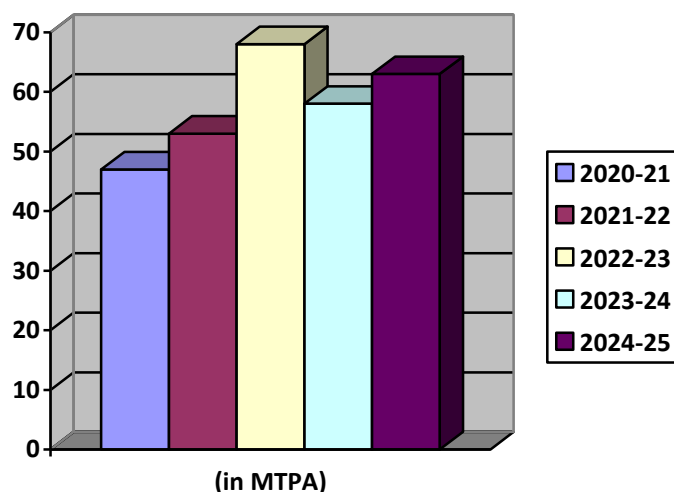
FINDING AND SUGGESTIONS AND CONCLUSION

Net Worth : it is observed as the average net worth observed as about Rs.43001 Crs. It is increasing trend, which implies that the net worth is growing year by year. The co-efficient of variation evidenced as 29.71 percent.

Revenue From Operations : It ranged between the minimum of Rs.24516 crs and the maximum of Rs.35045 crs. The co-efficient of variation shows that the stability of revenue performance is about 15.49 percent.

Sales volume in Metric Tons: It is fluctuated during the study period. The standard deviation is observed as 7.36 crore . The co-efficient of variation is 12.73 percent which implies that the stability of sales volume

The Growth of Assets Performance: The mean value of Growth of Assets ranged as Rs.56539 Crs. The minimum growth observed in 2020-21 is about Rs.39721 crsThe co-efficient of variation observed as 26.27 percent which means that the stability growth in assets.

Earnings Before Interest And Tax: it is fluctuated and increased in last two years 2023-24(Rs.7566 crs) to 2024-25(Rs.8625 crs) of the study period reached the above mean value of Rs.6814. The co-efficient of variation is 16.94 percent which implies that the stability of EBIT.

Profit After Tax: the PAT implies that the net profit margin of the Ambuja cement. The average PAT evidenced that Rs.3947 crore. The last two years of the study period PAT performance above the mean value. The co-efficient of variation is observed about 21.80 percent which means that the net margin stability of Ambuja cement.

Earnings Per Share: It means that the net earnings divided by the total number of shares. The average EPS evidenced that the Rs.14.8, which is fluctuated during the study period.

Average Capital Employed: internal capital increased year by year it is also increasing trend which implies that the depended on internal fund. The mean value of ACM is Rs.39602 crs and the standard deviation is Rs.10367.27 crs. The co-efficient of variation is about Rs.26.18 percent.

Corporate Social Responsibility: CSR expenses spent for social activities. The average CSR is observed as Rs.99.2crores. it is also fluctuated but three year reached the above average Rs.100 crores in 2021-22 , Rs.118 crs in 2022-23 and Rs.104 crores in 2024 -2025. The Standard deviation os observed as Rs.11.68 percent . the co-efficient of variation is 11.78 percent , which means that the stability in CSR spending.

CONCLUSION

India's cement industry show robust volume growth driven by infrastructure & housing, massive capacity expansion plans, a strong push for sustainability (green cement, carbon capture), increased automation, and consolidation, with blended cement dominating demand. The sector is growing rapidly, with projections reaching 850 MTPA capacity by 2030, underpinned by government spending and urbanization. The Ambuja cement depended on internal fund than external. Growths of assets are in increasing trend. Sales volume also in increasing trend. Profitability performance is fluctuated and also in satisfactory level. Corporate social responsibility expenses evidenced that the growth in performance.

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EFFECT OF SELF-EFFICACY ON WOMEN ENTREPRENEURS, KODAIKANAL

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ABSTRACT

The researcher examines whether self-efficacy contributes to the entrepreneurial intention of women entrepreneurs in Kodaikanal. The study reveals a relationship between socio-demographic variables and the role of self-efficacy in women entrepreneurs. This research aimed to envisage the women entrepreneurial intention among 121 women entrepreneurs in various business platforms such as manufacturing, retail, trading, agriculture, and other allied activities performed in various important business locations of Kodaikanal. The chi-square test is applied to find the results. The results indicate that there is a significant relationship between self-efficacy and socio-demographic variables. Self-efficacy plays a key role in clarifying the entrepreneurial intention of women entrepreneurs in Kodaikanal. This research analyses the relationship between self-efficacy and socio-demographic variables, with the presence of openness to experience as a mediator. The researcher adds to the review of knowledge hypothetically and suggests that policymakers develop flexible policies for women entrepreneurs to develop entrepreneurial intention.

KEY WORDS: women entrepreneurs, business performance, self-efficacy

INTRODUCTION

Women's entrepreneurs throughout the globe play a vital role. It is an important element that entrepreneurs build the economy of every nation, and they are responsible for the growth and development of a country's economy. During the 19th century, women rose as key performers in entrepreneurship. Even though across continents, women are demoted by the man-dominated culture,which assigns roles at home, as the mother and wife, they are accountable for the children's progress, care, growthandthe well-being. Women have been subject to traditional norms, beliefs, and values that have secondary status in their societies. Several research studies state that there are major reasons that women have expectations of freedom for career development. Still, women were suffering from oppression and exploitation due to gender ideologies. Hence, men are more responsible for outdoor work, which is more important for domestic tasks.

A Study on self-efficacy states that it varies according to gender and its influence on career development. There are few studies on the entrepreneurial aspirations of Kodaikanal women based on the self-efficacy theory and its consequences, despite a review of the literature

on the status of female entrepreneurs and the factors influencing their career advancement. As a result of previous research studies, it is unable to comprehend how to support women's roles in Kodaikanal business; studies have shown interest in considering their ability to determine the self-efficacy, and disseminate information for women's career advancement in the related society.

From the past literature, we need to an attention to identify and fill the research gap of insufficient knowledge about the understanding of women entrepreneurs' careers and to cope with the opportunities and obstacles they confront. Research gap in the past studies leads to a lack of sufficient knowledge of how Kodaikanal women entrepreneurs understand their careers, and how they respond to the opportunities and barriers they face. Self-efficacy can be said to help choose a career, and those women with high self-efficacy will choose an entrepreneurial career, as a choice gives an opportunity for their career development. In Kodaikanal, women may have less self-efficacy due to the status of stereotypical gender roles.

Women frequently contribute significantly to economic progress in all countries, but they are the most marginalized group in Indian society. They aren't having opportunities for them to grow. It is now necessary for these women to be valued in all facets of life, particularly in entrepreneurship. It is undeniable that a country's economic growth is largely dependent on the emergence of dynamic and inventive entrepreneurship as well as the development of new initiatives, which may be encouraged by the rise in female entrepreneurs in both developed and developing nations.

Therefore, they would take less part in business accomplishments and show less business expectations compared to men. However grade of women and their self-efficacy towards career choice can develop with reforms, Kodaikanal's socio-economic considerations. Few authors stated that self-efficacy is essential for the intentions of entrepreneurship and also anticipating identifying opportunities. To understand the entrepreneurial intention of women, it is important to understand the background of self-efficacy. There a several studies conducted on women's business intentions, but most have been carried out in other parts of the nation. This made the researcher examine the self-efficacy of women entrepreneurs, Kodaikanal.

REVIEW OF LITERATURE

According to Bandura's (1977) social learning theory, self-efficacy (SE) refers to an individual's confidence in their capacity to perform a specific activity. It also implies that self-efficacy becomes a significant factor in the creation of intentions. Every woman has her own opinions about various aspects of her life. The intention to act itself is impacted by this mindset, particularly in the context of entrepreneurship.

Another study used perceived behavioral control as a mediator between perceived social norms and business intentions in the elderly (Koutonen et al, 2011). Rasli et al. (2013) claim that women's entrepreneurial ambition is a consciousness that inspires them to launch a new business. Women's intentions are directly influenced by perceived behavior control.

According to Rahmi et al. (2014), women must be encouraged to have faith in their capacity to accomplish the intended goals or results. Self-efficacy is the perception of a woman's capacity to overcome a unique circumstance in connection to an evaluation of her capacity to carry out an action that must be carried out with the particular task or circumstance.

It shows that students have the self-confidence to achieve business success and meet the challenges (Bonifasia E. Bharanti, 2016). Muhammad Shukri Bakar (2017). A detailed literature review provided consistent justification for the effect of entrepreneurial self-efficacy (ESE) on entrepreneurial intention. Recently, the literature yielded a similar relationship on the link between ESE to firm performance.

Saksamrit, N; Sripongpun, K. (2021). Objective - This research clarifies how entrepreneurial self-efficacy (ESE) affects performance, and entrepreneurial passion (EP) may vary the ESE-firm performance relationship as a mediator. Methodology/Technique - The data

was collected using a questionnaire distributed to 400 entrepreneurs. All measures had acceptable Cronbach's alpha reliabilities. Descriptive statistics, mean, and standard deviation were used to analyze the data. The conceptual model and hypotheses were tested by using linear regression analysis. Confirmatory factor analysis was used to test construct validity.

Victor Barinua and Okoro, Stephen C. (2022). Self-efficacy is a cognitive construct that describes a person's confidence in their ability to perform tasks. Self-efficacy has been shown to influence a broad range of individuals' cognition and behaviour. The focus was on creativity and innovativeness as dimensions of entrepreneurial success, and profitability and productivity as measures of firm success. This study examines the relationship between entrepreneurial self-efficacy and firm success of SMEs in Rivers State. The focus was on creativity and innovativeness as dimensions of entrepreneurial success, and profitability and productivity as measures of firm success.

Taneja, M. (2024). This present research examines the effect of Entrepreneurial self-efficacy (ESE) and its sub-constructs on Entrepreneurial success (ES). The study uses primary data gathered from students enrolled in entrepreneurial courses offered by topmost 100-ranked higher educational institutions (HEI). The questionnaire was sent to 500 students, and 323 valid responses were considered (response rate: 64.6%). Among these, 195 were males, and 128 were females. The study was carried out in Punjab, Haryana, and the National Capital Region, regions of Northern India. The present study used SPSS software to investigate the relationship between "regressed on" and "regress on" variables. McGee's scale was used to measure ESE. For measuring the dependent variable, i.e., "ES," items were taken from the scale of Linan, Battistelli, & Moriano.

Pennetta, S., Anglani, F., Reaiche, C., & Boyle, S. (2025). The systematic literature review (SLR) investigates Entrepreneurial Resilience (ER) in the context of recent global disruptions. It also explores the vital role of digital technologies in facilitating entrepreneurial adaptation and continuity during times of uncertainty. Two key contributions are presented: first, a reconceptualization of ER that aligns with emerging research on global entrepreneurial demands; and second, recognition of digitalisation as a core enabler of resilience. Building on these findings, the study introduces the ER model that integrates Emotional Intelligence (EQ), Cultural Intelligence (CQ), and essential entrepreneurial traits.

STATEMENT OF THE PROBLEM

Even though there is increasing participation of women in entrepreneurial activities, many of them face significant obstacles in sustaining and expanding their businesses. This study's Objectives are to determine how self-efficacy affects women's entrepreneurial intention, with perceived behavior control acting as a mediator and openness to experience acting as a moderator. Self-efficacy is an important factor influencing enterprise success. Self-efficacy refers to an individual's belief in their ability to organize and execute actions required to manage prospective situations. Women entrepreneurs often face personal, social, and economic constraints. Demographic variables such as age, income and marital status influence their decision-making ability. These factors can affect and create great challenges for the business. The study specifically explores how self-efficacy interacts with demographic factors such as age, income, and marital status in shaping women's ability to handle unexpected business problems. Therefore, the current study aims to inspect the relationship between age, income level, and marital status with women entrepreneurs' ability to handle unpredictable business challenges and business revenue growth, while also exploring strategies to enhance self-efficacy for empowering women-led enterprises.

OBJECTIVES OF THE STUDY

1. To examine the relationship between the age of respondents and their ability to handle business problems, that arises unexpectedly.
2. To analyze whether the income level of the respondents influences the extent to which their

business revenue has increased significantly.
3. To determine the association between the marital status of respondents and their ability to adapt to unexpected business challenges.
4. To provide suggestions for enhancing self-efficacy to empower women-led enterprises.

HYPOTHESES OF THE STUDY
1. There is no significant relationship between Age of the respondents and their ability to handle business problems even when they happen suddenly.
2. There is no significant relationship between Income of the respondents and their business revenue has increased significantly.
3. There is no significant association between the marital status of the respondents and their ability to adapt to unexpected business challenges.

RESEARCH DESIGN

The present study adopts a descriptive research design to examine the impact of self-efficacy levels on women entrepreneurs at Kodaikanal and to analyze the factors influencing their entrepreneurial behaviour and business performance. The Present study is based on primary data, which was collected through a structured questionnaire containing demographic details, business performance, and self-efficacy scales measured using 5-point Likert scales, such as strongly disagree to strongly agree. The secondary data are collected from journals, research articles, books, government reports, websites, and previous research studies. The study is conducted in the selected geographical region is Kodaikanal, focusing on women entrepreneurs. With convenience sampling, the respondents are selected based on their easy availability. The population for the study was women entrepreneurs, and the sample size was 121. 140 questionnaires were distributed to collect data from women entrepreneurs in Kodaikanal. Descriptive analysis and chi-square test were used to identify the impact of demographic variables and the impact of self-efficacy on women entrepreneurs.

ANALYSIS AND INTERPRETATION

The study describes the socio-economic status of the respondents and the impact of self-efficacy on women entrepreneurs of Kodaikanal.

Table No. 1
Demographical variables

Particulars	Frequency (121)	Percent (100)
Age		
36–45 years	38	31.40
26–35 years	34	28.09
18–25 years	29	23.96
46–55 years	17	14.04
Above 55 years	3	2.47
Income		
10,000–20,000	58	47.93
20,000–30,000	51	42.15
30,000–40,000	12	9.92
Marital Status		

Married	93	76.86
Unmarried	19	15.7
Widow	7	5.79
Divorced/Separated	2	1.65

Source: Primary Data

The Table depicts that based on the responses, the majority of women entrepreneurs belong to the age group between **36–45 years** (31.40%). Most of them earn income between Rs. **10,000–Rs. 20,000** (47.93%) and dominated by married women, around 77%.

Table No. 2
Demographic and self-efficacy variables

Particulars	χ² value	Degree of freedom	p—value (> 0.05)	Hypothesis Accepted/ Rejected
Age	23.376	16	0.1041	Accepted
Income	12.936	6	0.0441	Rejected
Marital Status	7.402	12	0.830	Accepted

From the above table, it illustrates that a null hypothesis helps to indicate the association between demographic variables such as Age, Income, and Marital Status, and the impact of self-efficacy on women entrepreneurs, especially variables such as Ability to handle business problems even when they happen suddenly, My business revenue has increased significantly, and the Ability to adapt to unexpected challenges.

This shows that a Chi-square test of independence was conducted to examine the association between the two variables. Since the p-value is greater than the 0.05 level of significance, the null hypothesis is accepted for age, marital status, and the Ability to handle business problems even when they happen suddenly, and the Ability to adapt to unexpected challenges. Similarly p-value is less than the 0.05 level of significance, the null hypothesis is rejected for the income of the respondents, and my business revenue has increased significantly.

Table No. 3
Demographic and self-efficacy variables

Variables (p< 0.05)	Handle Problems	Adapt Challenges	Strong Skills	Revenue Increased
Age	0.14	0.18	0.10	0.15
	weak positive significant	**small positive significant**	do not significant	weak positive significant
Income	0.32	0.29	0.35	0.41
	Moderate, positive and significant	Moderate, positive and significant	Moderate, positive and significant	**Moderate-to-strong positive significant**

Correlation analysis is tested with the Age and Income of the respondents, with self-efficacy on women entrepreneurs. It is depicted that a Small positive correlation exists between Age of the respondents and adapting to unexpected challenges, and a Moderate-to-strong positive correlation that Income level is significantly associated with business revenue.

CONCLUSION

The findings revealed that the p-values were higher than 0.05; the results showed that respondents' capacity to manage business issues and adjust to unforeseen hurdles is not statistically significantly associated with age or marital status. However, a significant

association was shown between the respondents' income and the statement "My business revenue has increased significantly."

SUGGESTIONS

Since age and marital status do not influence problem solving, it is recommended to offer targeted skill development programmes, such as crisis management training and business decision-making workshops can be organized to enhance women entrepreneurs. As there is a relationship between income and an increase in business revenue, the Government can offer microfinance schemes and ease the credit, promote low interest loans and subsidies. Finally, Kodaikanal women entrepreneurs can be encouraged through a network and mentorship, which will enable them, learns from peers and acquires knowledge to sustain their business.

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"A COMPARATIVE ANALYSIS OF E-SERVICE QUALITY, SATISFACTION, ACROSS DEMOGRAPHIC GROUPS IN A METROPOLITAN MARKET"

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ABSTRACT

The rapid expansion of digital services has significantly transformed consumer purchasing behavior and online interactions, particularly in metropolitan regions. This research explores digital consumer segmentation and evaluates differences in e-service quality satisfaction among various demographic groups. The study examines major dimensions of e-service quality, including usability, reliability, responsiveness, security, and personalization. Primary data were collected from online users through a structured questionnaire and analyzed using suitable statistical techniques. The findings reveal noticeable variations in satisfaction levels among demographic categories, emphasizing the importance of customized digital service approaches. The study offers valuable insights for digital service providers to better understand consumer expectations and enhance overall service quality and customer satisfaction.

INTRODUCTION

In recent years, digital services have become an integral part of everyday consumer activities in metropolitan markets. The widespread use of online platforms has increased competition among service providers, making e-service quality a critical determinant of customer satisfaction. Consumers differ in demographic characteristics such as age, gender, income, and education, which influence their perceptions and evaluation of online services. Elements like ease of use, system reliability, security, and responsiveness play a significant role in shaping user satisfaction. Hence, analyzing digital consumer segmentation and comparing e-service quality satisfaction across demographic groups is essential. This study attempts to examine these variations to assist digital service providers in improving service performance and customer experience.

SCOPE OF THE STUDY

The present study focuses on digital consumer segmentation and e-service quality satisfaction within a metropolitan market. It evaluates important dimensions of e-service quality, namely website usability, reliability, responsiveness, security, and personalization. The research compares satisfaction levels among different demographic groups such as age, gender, income, and educational qualification. The study is confined to consumers who regularly use digital platforms and relies on primary data collected through a structured questionnaire. The outcomes are intended to support digital service providers in designing effective service quality improvement strategies.

REVIEW OF LITERATURE

Parasuraman et al. (2005) developed a framework emphasizing that reliability, responsiveness, and security are crucial determinants of electronic service quality and customer satisfaction.

Santos (2003) highlighted that user-friendly website design and ease of navigation significantly influence consumers' perceptions of online services.

Khan and Rahman (2016) observed that demographic variables such as age and income play an important role in shaping consumer expectations and satisfaction in online shopping environments.

Ramanathan and Annamalai (2019) concluded that enhanced e-service quality contributes to higher customer satisfaction and retention, particularly in metropolitan digital markets.

OBJECTIVES OF THE STUDY

1. To analyze the demographic characteristics of digital consumers
2. To measure the level of e-service quality satisfaction among consumers
3. To compare satisfaction levels across different demographic groups
4. To identify the key e-service quality factors influencing overall satisfaction

SIGNIFICANCE OF THE STUDY

The study provides insights into the relationship between demographic characteristics and e-service quality satisfaction. It highlights how different consumer segments perceive various dimensions of digital services. The findings help digital service providers develop targeted strategies to improve customer satisfaction. Additionally, the study contributes to existing literature on digital consumer behavior and serves as a reference for future academic research.

STATEMENT OF THE PROBLEM

The increasing reliance on digital platforms in metropolitan markets has intensified the need to deliver high-quality e-services. However, consumers differ widely in demographic characteristics, which affect their expectations and satisfaction levels regarding online services. Many digital service providers adopt uniform strategies without adequately addressing these differences, resulting in varying satisfaction levels among consumer groups. Therefore, there is a need to examine digital consumer segmentation and assess e-service quality satisfaction across demographic categories to enable service providers to enhance service quality and customer satisfaction.

LIMITATIONS OF THE STUDY

1. The study is restricted to a metropolitan market and may not represent rural or semi-urban consumers
2. Data were collected through a questionnaire, which may involve respondent bias
3. Only selected demographic variables and e-service quality dimensions were considered
4. The sample size was limited due to time and cost constraints.
5. The findings reflect consumer opinions at a specific period and may change over time.

RESEARCH METHODOLOGY

Research Design

A descriptive research design was adopted to examine digital consumer segmentation and e-service quality satisfaction.

Nature of the Study

The study is analytical and empirical in nature. Sources of Data

Primary Data: Collected through a structured questionnaire

Secondary Data: Obtained from journals, books, research articles, websites, and reports

Sampling Method

Sampling Technique: Convenience sampling Sample Size: 80 respondents

Sampling Unit: Digital service users in a metropolitan market Statistical Tools Used Percentage analysis, Mean and Standard Deviation ANOVA, t-Test

Period of the Study

The study was conducted during a specified period. Software Used SPSS and MS Excel were used for statistical analysis.

DATA ANALYSIS

Table 1
Percentage Analysis of Demographic Profile

Demographic value	Category	No. of. Respondents	Percentage (%)
Age	Below 25 years	22	27.5
	25-35 years	34	42.5
	36-45 years	16	20
	Above 45 years	8	10
Gender	Male	44	55
	Female	36	45
Monthly Income	Below ₹20000	18	22.5
	₹20001-₹40000	32	40
	Above ₹40000	30	37.5
Education	Undergraduate	24	30
	Postgraduate	38	47.5
	Professional / others	18	22.5
Total		80	100

Table 2
Mean and Standard Deviation of E-Service Quality Satisfaction

E-service quality dimensions	Mean score	Standard Deviation
Ease of use (usability)	4.12	0.68
Reliability	3.89	0.71

Responsiveness	4.5	0.64
Security	3.62	0.82
Personalization	3.48	0.76
Overall satisfaction	3.83	0.72

Table 3
ANOVA – Satisfaction Across Age Groups

Sources of variation	Sum of Squares	df	Mean Square	F value	Sig.
Between Groups	8.46	3	2.82	4.18	0.009
Within Groups	51.22	76	0.67		
Total	59.68	79			

Interpretation:

Since the significance value is less than 0.05, a statistically significant difference exists in satisfaction levels among different age groups.

Table 4
t-Test – Satisfaction Based on Gender

Gender	Mean	Standard Deviation	T value	Sig (p)
Male	3.91	0.69	2.14	0.036
Female	3.72	0.74		

Interpretation: The p-value indicates a significant difference in satisfaction between male and female consumers.

Table 5

ANOVA – Satisfaction Across Income Groups

Source	Sum of Squares	df	Mean Square	F value	Sig.
Between Groups	6.94	2	3.47	3.62	0.031
Within Groups	52.74	77	0.68		
Total	59.68	79			

Interpretation:

Income level significantly influences e-service quality satisfaction.

Interpretation of Data

1. Demographic characteristics were analyzed using percentage analysis
2. Satisfaction levels were measured using mean and standard deviation
3. Differences across groups were examined using t-Test and ANOVA

4. Relationships between variables were identified using correlation analysis
5. Key influencing factors were identified through regression analysis
6. Results were presented using tables and graphical representations

FINDINGS OF THE STUDY

1. A majority of digital consumers are young, educated, and belong to middle- or high-income groups
2. High satisfaction was observed for usability and responsiveness, while personalization and security received comparatively lower scores
3. Satisfaction levels differ significantly across age, gender, and income categories
4. Usability, security, and responsiveness are the strongest determinants of overall satisfaction

SUGGESTIONS

1. Digital platforms should enhance personalization features to meet individual user preferences
2. Strong security measures should be implemented to increase consumer trust
3. User interfaces should be simplified to improve ease of use
4. Customer support services should be prompt and effective
5. Service strategies should be tailored based on demographic segmentation

CONCLUSION

The study concludes that digital consumers in metropolitan markets are predominantly young, educated, and financially stable. Satisfaction with digital services varies across demographic groups, with higher satisfaction reported for usability and responsiveness and lower satisfaction for personalization and security. E-service quality has a significant positive influence on overall consumer satisfaction, with usability, security, and responsiveness emerging as key factors. Digital service providers should therefore adopt demographic-specific strategies, strengthen security systems, improve usability, and offer personalized services to enhance customer satisfaction and long-term loyalty.

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"INVESTMENT PORTFOLIO BEHAVIOUR OF SENIOR CITIZENS: A STUDY OF PONNANI TALUK IN KERALA"

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ABSTRACT

Investment decisions during old age play a crucial role in ensuring financial security and stability. Senior citizens generally prefer low-risk and stable investment avenues due to reduced income flow and increased dependency. This study examines the investment portfolio behaviour, risk tolerance, saving patterns, and investment objectives of senior citizens in Ponnani Taluk, Kerala. Primary data were collected from 100 respondents using a structured questionnaire, and statistical tools such as percentage analysis and chi-square tests were applied. The findings reveal that senior citizens largely prefer bank deposits and real estate investments, exhibit low risk tolerance, and prioritize income security over capital appreciation. The study highlights the need for financial literacy and customized investment advisory services for the elderly population.

KEYWORDS: Senior citizens, investment portfolio, risk tolerance, saving behaviour

INTRODUCTION

Investment refers to the allocation of current income into assets with the expectation of future returns. For senior citizens, investment decisions are influenced by income security, health expenditure, longevity risk, and post-retirement needs. With increasing life expectancy in India, the elderly population faces challenges related to financial independence and sustainability of retirement savings.

Portfolio analysis helps investors balance risk and return by diversifying investments across different asset classes such as bank deposits, bonds, mutual funds, and real estate. In Kerala, where a significant proportion of the population consists of senior citizens, understanding investment behaviour becomes essential for policymakers and financial institutions. This study focuses on analysing the investment portfolio of senior citizens in Ponnani Taluk, a region with a growing elderly population.

STATEMENT OF THE PROBLEM

The rising cost of living and increased longevity have compelled senior citizens to carefully plan their investments after retirement. Despite having savings, many elderly individuals lack adequate knowledge about diversified investment options and risk management. This study attempts to analyse the investment portfolio behaviour of senior citizens in Ponnani Taluk, with particular emphasis on their risk tolerance, saving patterns, and investment objectives.

REVIEW OF LITERATURE

Mr. Suresh Kashinath Ghatge[1], Prof.(Dr.) Anuradha Parasar[2] (2024), This study highlights the rapid growth of India's senior citizen population and stresses the importance of examining their financial stability and social security needs. The authors emphasize that supporting senior citizens is essential for ensuring their dignity and overall wellbeing.

Desai & Prakash (2023) explored behavioural factors influencing the investment choices of elderly investors in semi-urban areas. The study concluded that risk aversion, past financial experiences, trust in financial institutions, and advice from family members significantly affected the investment portfolio of senior citizens. The study recommended strengthening investor awareness initiatives and improving accessibility to senior-friendly financial services.

Khan & Thomas (2022) carried out research on retirement planning behaviour among senior citizens, focusing on post-retirement financial security. The study found that factors such as health expenses, inflation, and family responsibilities play a major role in shaping retirement saving patterns. The study stressed the need for customized financial products targeted at retired individuals.

Patel & Sharma (2021) examined the impact of financial literacy on investment decision-making among ageing investors in India. The study revealed that financial knowledge strongly influences investment choices, risk perception, and confidence levels among senior citizens. The study underscored that financial literacy programs are essential to help senior citizens make informed decisions and cope with rising living costs and inflation.

Ramakrishnan & Devi (2020) conducted a study on the investment behaviour of retired individuals in South India. The research highlighted that senior citizens prefer traditional and low-risk investment avenues such as fixed deposits, post-office schemes, and gold due to limited income sources and fear of losing capital. The findings emphasise the need for improving financial education among older adults to support better retirement planning.

Murthy Y.V.R. (2018), Conducted a study on the investment behaviour of working women with a focus on equity-oriented securities. The study found that younger working women are increasingly entering equity markets through mutual funds and insurance. Income and risk were not the primary determinants of equity investment; rather, occupation significantly influenced investment decisions. Most women showed preference for online investment platforms.

Bhatt K.A. (2016) The study on investors in the Jamnagar region revealed that individuals prioritize safety and reliability when investing. Although equity markets offer high returns, lack of proper knowledge prevents many from investing in them. With decreasing bank interest rates, investors are gradually moving toward mutual funds, bonds, equities, land, gold, and real estate. The study suggested that investors try to balance safety with expected returns.

Suman & Waren (2012) Their research on individual investor behaviour in stock markets examined demographic factors such as age, gender, education, income, and profession. The study found that income and saving levels strongly influence investment decisions. Investors were aware of stock market alternatives, and market movement significantly affected their investments.

OBJECTIVES OF THE STUDY

The objectives of the study are:

1. To examine the risk tolerance of senior citizen investors
2. To analyse their saving pattern for investment purposes
3. To identify the motives behind investment decisions
4. To study the preferred investment avenues among senior citizens

RESEARCH METHODOLOGY

The study adopts a descriptive research design and is based on both primary and secondary data. Primary data were collected from a sample of 100 senior citizens selected through purposive sampling from Ponnani Taluk, Kerala. Data were gathered using a structured questionnaire supplemented by personal interviews to ensure accuracy and completeness of responses. Secondary data were sourced from books, journals, reports, and relevant online resources. The collected data were analysed using statistical tools such as percentage analysis, tabulation, and the chi-square test to examine relationships between variables and draw meaningful inferences.

DATA ANALYSIS AND RESULTS

Demographic Profile of the Respondents (n = 100)

Variable	Category	No. of Respondents	Percentage
Age (years)	50–60	56	56%
	60–70	32	32%
	Above 70	12	12%
Gender	Male	65	65%
	Female	35	35%
Education	Below Secondary	10	10%
	Secondary	23	23%
	Senior Secondary	47	47%
	Degree & above	20	20%

Interpretation

The demographic profile reveals that a majority of the respondents (56%) belong to the age group of 50–60 years, indicating that investment decisions are predominantly made during the early phase of senior citizenship. Male respondents constitute a higher proportion (65%), suggesting relatively greater financial participation among men. Educational qualification is largely limited to secondary and senior secondary levels, which may influence awareness and understanding of complex investment instruments.

Savings Pattern and Sources of Investment Funds

Variable	Category	Respondents	Percentage
Savings (% of income)	0–10%	50	50%
	10–20%	20	20%
	20–30%	19	19%
	Above 30%	11	11%
Source of Funds	Own savings	64	64%
	Borrowings	15	15%
	Both	21	21%

Interpretation

The analysis shows that half of the respondents save less than 10% of their income, reflecting limited surplus income among senior citizens. A majority (64%) rely on their own savings for investment, while a notable proportion uses borrowed funds or a combination of sources. This indicates financial constraints and the absence of strong post-retirement income streams, reinforcing conservative investment behaviour.

Investment Objectives and Preferred Investment Avenues

Variable	Category	Respondents	Percentage

Investment Objective	Modest income with no risk	45	45%
	Modest income with growth	18	18%
	Conservation of capital	17	17%
	Others	20	20%
Investment Avenue	Real estate	42	42%
	Bank deposits	29	29%
	Bonds	12	12%
	Mutual funds	7	7%
	Others	10	10%

Interpretation

The results clearly indicate that the primary investment objective of senior citizens is to earn modest income without risking capital. This preference strongly influences portfolio composition, with real estate and bank deposits emerging as dominant investment avenues. Low participation in mutual funds and market-linked instruments reflects risk aversion and limited awareness of diversified financial products.

Risk Tolerance and Risk-Taking Aptitude

Risk Level	Respondents	Percentage
No risk	35	35%
Low risk	45	45%
Medium risk	12	12%
High / Very high risk	8	8%

Interpretation

The risk tolerance analysis demonstrates that nearly 80% of respondents prefer no-risk or low-risk investment options. Only a marginal proportion is willing to accept high or very high risk. This strong inclination towards safety is consistent with retirement-phase financial priorities such as income certainty, liquidity, and capital protection.

Relationship between Income Level and Risk-Bearing Capacity

Income Level	Low Risk	Medium Risk	High Risk	Total
Low income	32	6	2	40
Middle income	28	14	6	48
High income	5	4	3	12
Total	65	24	11	100

Chi-square test indicates a significant relationship between income level and risk-bearing capacity.

Interpretation

The chi-square analysis confirms a statistically significant relationship between income level and risk-bearing capacity. Senior citizens with higher income levels demonstrate relatively greater willingness to accept moderate and high risk compared to low-income respondents. However, even among higher-income groups, conservative investment behaviour remains dominant, underscoring the strong influence of age-related risk perception.

FINDINGS

1. Senior citizens are predominantly risk-averse investors
2. Bank deposits and real estate dominate investment portfolios
3. Retirement security is the main motive behind investment
4. Awareness of high-risk and market-linked instruments is limited

SUGGESTIONS

1. Financial institutions should design senior-citizen-friendly investment products
2. Financial literacy programmes focusing on retirement planning should be promoted
3. Professional investment advisory services should be encouraged

4. Government policies should strengthen pension and low-risk investment schemes

CONCLUSION

The study concludes that senior citizens in Ponnani Taluk prefer conservative investment portfolios aimed at ensuring income security and capital protection. While such strategies minimise risk, inadequate diversification may limit long-term returns. Enhancing financial awareness and providing tailored investment solutions can significantly improve the financial well-being of the elderly population.

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BANKING AND FINANCIAL SERVICES: A CATALYST FOR INDUSTRIAL GROWTH

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ABSTRACT

Banking and financial services serve as the backbone of industrial growth by mobilizing savings and converting them into productive investments. They provide the necessary capital required for the establishment, expansion, and modernization of industries. Through various credit facilities such as term loans, working capital finance, and trade credit, banks ensure uninterrupted industrial operations. This financial support enhances production capacity, encourages technological advancement, and strengthens the overall industrial structure of the economy. Financial institutions also play a crucial role in promoting entrepreneurship and supporting small, medium, and large-scale industries. Development banks and specialized financial institutions provide long-term finance, project appraisal, and technical guidance, especially for capital-intensive and priority sectors. By facilitating access to funds and reducing financial constraints, banking services encourage innovation, employment generation, and balanced regional industrial development. In addition to financial assistance, banking and financial services contribute to industrial growth through risk management, financial stability, and digital transformation. Services such as insurance, credit guarantees, and modern digital banking solutions help industries manage uncertainties and improve efficiency. The adoption of technology in banking ensures faster transactions, better financial control, and increased transparency. Overall, a strong banking and financial system supports sustainable industrial growth and plays a vital role in economic development.

KEYWORDS: Banking Services, Financial Institutions, Industrial Growth, Capital Formation, Credit Facilities, Entrepreneurship Development, Risk Management, Digital Banking, Economic Development.

INTRODUCTION

Banking and financial services play a fundamental role in the economic development of any nation, particularly in driving industrial growth. Industries require a continuous flow of financial resources for their establishment, expansion, and modernization, which is made possible through an efficient banking system. By mobilizing savings from the public and channeling them into productive industrial investments, banks act as a vital link between savers and investors. This intermediation process strengthens capital formation and lays a strong foundation for industrial development. The availability of adequate finance is one of the key

determinants of industrial progress. Banking institutions provide various forms of financial assistance such as short-term, medium-term, and long-term credit to meet the diverse needs of industries. Working capital finance helps industries manage day-to-day operations, while long-term loans support investment in machinery, infrastructure, and technology. Without such financial support, industries would face operational constraints, leading to reduced productivity and slower growth. Financial institutions, including development banks and specialized financial agencies, further accelerate industrial growth by focusing on priority and capital-intensive sectors. These institutions not only provide financial support but also assist in project appraisal, feasibility studies, and technical guidance. Their role is particularly significant in supporting new entrepreneurs and large-scale industrial projects that involve high risk and long gestation periods. This support encourages industrial diversification and balanced regional development. In the modern economic environment, banking and financial services extend beyond traditional lending to include risk management and financial stability. Industries face various uncertainties such as market volatility, credit risks, and operational challenges. Financial services like insurance, credit guarantees, and hedging instruments help industries mitigate these risks. By ensuring financial security and stability, banks enable industries to focus on innovation, quality improvement, and market expansion. Moreover, the rapid advancement of technology has transformed banking and financial services, making them more efficient and accessible. Digital banking, electronic payment systems, and fintech solutions have simplified financial transactions and improved transparency. These technological developments reduce transaction costs and enhance the speed of financial operations, thereby supporting industrial efficiency and competitiveness. Overall, banking and financial services continue to act as the backbone of industrial growth and sustainable economic development.

SIGNIFICANCE OF THE STUDY

The significance of this study lies in highlighting the crucial role played by banking and financial services in promoting industrial growth and economic development. By examining how financial institutions support capital formation, credit availability, and industrial expansion, the study helps in understanding the interdependence between the financial system and the industrial sector. This understanding is valuable for policymakers, researchers, and academicians in formulating strategies that strengthen financial frameworks to support sustainable industrial development. Furthermore, the study is significant for industrialists, entrepreneurs, and financial institutions as it provides insights into the importance of efficient financial services in improving productivity and competitiveness. It emphasizes the need for innovative banking practices, digital financial solutions, and effective risk management to support industries in a dynamic economic environment. The findings of the study can assist decision-makers in enhancing financial policies and practices that contribute to long-term industrial growth and stability.

SCOPE OF THE STUDY

The scope of the study covers an in-depth analysis of the role of banking and financial services in supporting industrial growth. It examines various banking functions such as mobilization of savings, credit creation, capital formation, and financial intermediation that contribute to the development of industries. The study also includes an overview of the services provided by commercial banks, development banks, and other financial institutions in meeting the short-term and long-term financial needs of industries. Further, the study extends to understanding the impact of modern financial services such as digital banking, risk management tools, and financial innovations on industrial efficiency and competitiveness. It considers the support provided to small, medium, and large-scale industries, along with the role of financial institutions in promoting entrepreneurship and balanced industrial development. However, the study is limited to conceptual and secondary data analysis and does not focus on firm-specific or region-specific empirical investigations.

LITERATURE SURVEY

Mishkin (2024) provides a comprehensive explanation of the role of banking systems and financial markets in supporting economic and industrial growth. The author emphasizes how efficient financial intermediation improves capital allocation, reduces information asymmetry, and supports industrial investment. Mishkin highlights that stable banking systems are essential for sustaining industrial expansion, especially in economies undergoing structural transformation. The study further explains how interest rate mechanisms and monetary policy transmission influence industrial borrowing decisions. It also discusses how banking supervision and regulation strengthen investor confidence. Overall, Mishkin establishes that a sound financial system is a prerequisite for long-term industrial sustainability and economic resilience.

Gorton (2024) examines the fragility of modern financial systems and its implications for economic and industrial stability. The study explains how financial crises disrupt credit flows, which directly affects industrial production and investment. Gorton highlights that banking panics reduce liquidity availability for industries, leading to stalled projects and job losses. The author also stresses the importance of transparency and early warning mechanisms in preventing systemic risks. The study suggests that strong institutional safeguards are critical for protecting industrial financing during economic downturns. Thus, financial stability emerges as a key driver of uninterrupted industrial growth.

Levine (2023) explores the relationship between finance, innovation, and industrial growth. The study argues that developed financial systems enhance innovation by providing industries with access to long-term funding and risk-sharing mechanisms. Levine emphasizes that industries with better access to finance invest more in research and development. The study also links financial development with faster adoption of advanced technologies. Furthermore, Levine highlights how financial reforms improve competitiveness in manufacturing sectors. The findings reinforce the view that finance-driven innovation is central to modern industrial development.

Demirgüç-Kunt and Martinez Peria (2023) analyze how banking sector depth influences industrial expansion in emerging markets. Their research shows that increased access to credit significantly boosts industrial output and firm growth. The study emphasizes the role of inclusive banking in supporting small and medium enterprises. It also highlights how digital banking expands financial access in underserved industrial regions. The authors argue that credit availability reduces entry barriers for new firms. Overall, the study confirms that banking depth is closely linked with industrial diversification and employment creation.

Beck (2023) investigates the impact of financial development on productivity growth across industries. The findings reveal that industries operating in financially developed economies experience higher productivity and faster growth. Beck emphasizes that efficient banks improve capital allocation and reduce financing costs. The study also highlights that financial access enhances firm-level efficiency. Furthermore, Beck discusses how banking competition improves service quality for industrial borrowers. The research concludes that financial development is a strong determinant of industrial productivity performance.

Rajan (2022) discusses the broader role of financial institutions in balancing markets, the state, and communities. The study suggests that well-functioning banking systems promote sustainable industrial growth by supporting local enterprises. Rajan emphasizes that relationship-based banking strengthens trust between industries and financial institutions. The study also warns against excessive financialization that may harm productive sectors. Rajan advocates inclusive finance to support long-term industrial stability. The findings underline the social responsibility of banking systems in industrial development.

Zingales (2022) focuses on financial intermediation and economic resilience. The study highlights how robust financial systems help industries withstand economic shocks by ensuring

continuous access to finance. Zingales explains that diversified financial instruments reduce dependence on a single funding source. The study also emphasizes regulatory strength in maintaining credit flow during crises. Financial resilience, according to the author, safeguards industrial employment and output. Thus, strong intermediation enhances both industrial stability and growth potential.

Acemoglu and Robinson (2021) analyze institutional frameworks and their influence on economic and industrial development. The authors argue that inclusive financial institutions promote industrial growth by encouraging investment and innovation. The study links political and economic institutions with banking efficiency. It further explains how weak institutions restrict industrial financing. The authors emphasize governance reforms to strengthen financial inclusion. Their work highlights that institutional quality is fundamental to sustainable industrial progress.

King and Levine (2021) examine the link between finance, entrepreneurship, and industrial transformation. Their study finds that financial development fosters entrepreneurial activity, which accelerates industrial growth. The authors argue that access to finance enables new firms to enter industrial markets. The study also highlights the role of venture capital and banking credit. Financial constraints are identified as major barriers to industrial innovation. Overall, the research establishes finance as a catalyst for structural industrial change.

Gennaioli, Shleifer, and Vishny (2020) explore how investor beliefs and financial fragility affect economic growth. The study explains that over-optimism and pessimism in financial markets influence industrial investment cycles. The authors highlight that financial misjudgments lead to credit booms and busts. These fluctuations significantly impact industrial output and employment. The study emphasizes the need for prudent financial oversight. Stable financial expectations are thus essential for sustained industrial development.

Beck, Demirgüç-Kunt, and Levine (2020) provide cross-country evidence on the relationship between financial institutions and industrial performance. Their findings show that countries with stronger banking systems experience higher industrial output. The study emphasizes how financial depth supports capital-intensive industries. It also discusses the role of financial inclusion in industrial expansion. Efficient banking systems reduce investment uncertainty. The authors conclude that finance remains a key driver of industrial competitiveness.

Ghosh (2020) focuses on the Indian context, examining the relationship between banking development and industrial growth. The study finds that improved access to bank credit significantly contributes to industrial expansion in India. Ghosh highlights the importance of banking reforms in improving credit delivery. The study also discusses challenges faced by MSMEs in accessing finance. Regional disparities in banking access are also analyzed. The findings emphasize banking sector modernization for industrial development in India.

Schumpeter (2019) presents a classical perspective on the role of finance in economic development. He argues that banks act as catalysts for industrial innovation by financing entrepreneurs. The study highlights the role of credit creation in economic transformation. Schumpeter emphasizes innovation-driven industrial growth. His theory explains how finance enables new production methods. This foundational work continues to influence modern finance–industry studies.

Bhide (2019) analyzes how banking systems support industrial development through effective capital allocation. The study emphasizes the importance of long-term banking relationships. Bhide highlights how banks help industries manage financial risks. The research also discusses governance mechanisms within banking systems. Stable banking relationships encourage industrial investment. The study reinforces trustbased finance as a pillar of industrial growth.

Pagano (2019) examines the interaction between financial markets, banks, and industrial growth. The study concludes that banks play a crucial role in reducing financing constraints for industries. Pagano highlights the complementary roles of banks and capital markets. The research emphasizes long-term finance for industrial expansion. Financial integration improves investment efficiency. The study confirms that balanced financial systems are essential for sustained industrial growth.

STATEMENT OF THE PROBLEM

Despite the recognized importance of banking and financial services in supporting industrial growth, many industries continue to face challenges in accessing timely and adequate financial resources. Issues such as stringent lending procedures, high interest rates, inadequate long-term financing, and limited access to credit for small and medium enterprises restrict industrial expansion and productivity. Additionally, regional imbalances in banking penetration and financial inclusion further widen the gap between industrial potential and actual performance, especially in developing economies. Moreover, the rapid changes in financial technology and regulatory frameworks have created both opportunities and complexities for industrial financing. While digital banking and innovative financial products have improved efficiency, not all industries are equally equipped to adopt these changes. Lack of financial literacy, risk management limitations, and institutional inefficiencies often hinder the effective utilization of banking and financial services. Hence, there is a need to systematically examine the role, effectiveness, and challenges of banking and financial services in promoting sustainable industrial growth.

OBJECTIVES OF THE STUDY

The primary objective of this study is focuses on understanding how banks and financial institutions contribute to capital formation, credit supply, and overall industrial development.. Specifically, the study aims to:

- To analyze financial products and services offered to industries
- To examine various banking facilities such as loans, advances, and working capital finance used by industries for operational and expansion purposes.
- To assess the impact of financial institutions on industrial performance
- To evaluates how financial support influences productivity, expansion, and competitiveness of industrial units.
- To identify challenges faced by industries in accessing finance
- To understand the problems related to credit availability, interest rates, procedural delays, and financial inclusion.
- To suggest measures to improve banking support for industrial growth
- To enhance the efficiency, accessibility, and effectiveness of banking and financial services for sustainable industrial development.

RESEARCH AND METHODOLOGY

Research Design

This study is based on Descriptive Research. A descriptive study is the one in which information is collected without changing the environment. Descriptive research is used to describe characteristics of a population or phenomenon being studied. The characteristics used to describe a situation or population are usually some kind of categorical scheme also known as descriptive categories.

Methods of Data Collection

We have made use of both primary and secondary data in this study.

Primary Data: Primary data includes information collected Google form from the respondents.

Secondary Data: Data collected from annual reports, magazines, books, Journals, Company website etc formed the Secondary data.

The questionnaire was prepared, keeping in mind the objectives of the study by consulting experts in   the field, and reviewed various published sources of information for the preparation of the tool.

Sampling Technique

A process used in statistical analysis in which a pre-defined number of observations will be taken from a larger population. The methodology used to sample from a large population will depend on type of analysis being performed. The sampling technique used here is Simple Random sampling

Sampling Size

Sampling is a technique of selecting individual members or a subset of the population to make statistical inferences from them and estimate the characteristics of the whole population. The sample size of the project t is 100 employees in banking and financial services.

Statistical Tools

The statistical tools are those tools by which the statistical methods are applied. Explanation:

Statistics is a broad scientific field that focuses on the collection, organization, and presentation of statistical data.   1. Percentage Analysis

- Chi-Square Test
- ANOVA
- Independent T-test

Percentage Analysis

Percentage Analysis is the method to represent raw streams of data as percentage (a part in 100- percent) for better understanding of collected data.

Percentage = (No of respondents / Total No of respondents) * 100

Chi – Square Test

A chi-squared test, also written as χ^2 test, is any statistical hypothesis test wherein the sampling distribution of the test statistic is a chi-squared distribution when the null hypothesis is true. Without other qualification, 'chi-squared test' often is used as short for Pearson's chi-squared test. Chi-squared tests are often constructed from a sum of squared errors, or through the sample variance. Test statistics that follow a chisquared distribution arise from an assumption of independent normally distributed data, which is valid in many cases due to the central limit theorem. A chi-squared test can be used to attempt rejection of the null hypothesis that the data are independent.

$$Chi\text{-}Square = \Sigma\ (O\text{-}E)\ 2\ /\ E$$

Where O is the observed frequency and E is the expected frequency

ANOVA

An analysis of various helps to examine the signification mean differences among more than two group on an interval or ratio scaled dependent variable. The result of ANOVA shows whether or not the means of various group are significantly different from one other, as indicated by the F statistic show whether two sample variance differ from each other or are from the sample population.

$$F=MST/MSE$$

INDEPENDENT T-TEST

The **independent t-test,** also called the two **sample t-test, independent-sample t-test** or student's **test,** is an inferential statistical **test** that determines whether there is a statistically significant difference between the means in two unrelated groups.

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt{\frac{s_1^2}{N_1} + \frac{s_2^2}{N_2}}}$$

DATA ANALYSIS AND INTERPRETATION
Gender of the Respondents - Percentage Analysis
Table 1
Respondents Based on Gender

S. No.	Gender	No. of Respondents	Percentage
1	Male	52	52
2	Female	48	48
	Total	100	100

Inference:

The above table infers that, 52% of the respondents are male and the remaining 48% are female.

Fig 1
Respondents Based on Gender
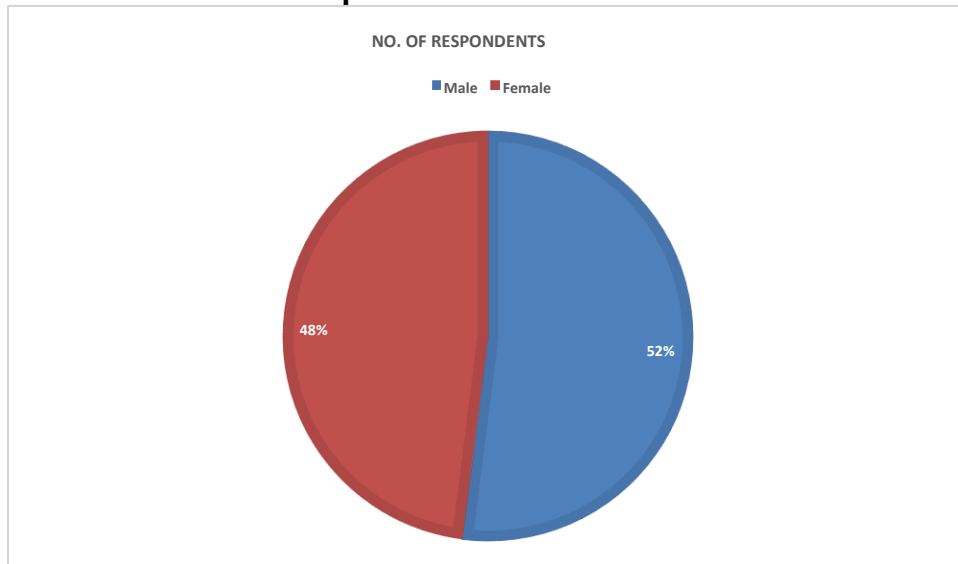
Table 2
Age of the Respondents

S. No.	Age	No. of Respondents	Percentage
1	20-25 years	19	19
2	26-35 years	19	19
3	36-45 years	20	20
4	46-50 years	32	32
5	Above 50 years	10	10
	Total	100	100

Inference:

The above table infers that, 19% of the respondents are 20-25 years, 19% are 26-35 years, 20% are 36-45 years, 32% are 46-50 years and remaining 10% are above 50 years.

Fig 2
Age of the Respondents
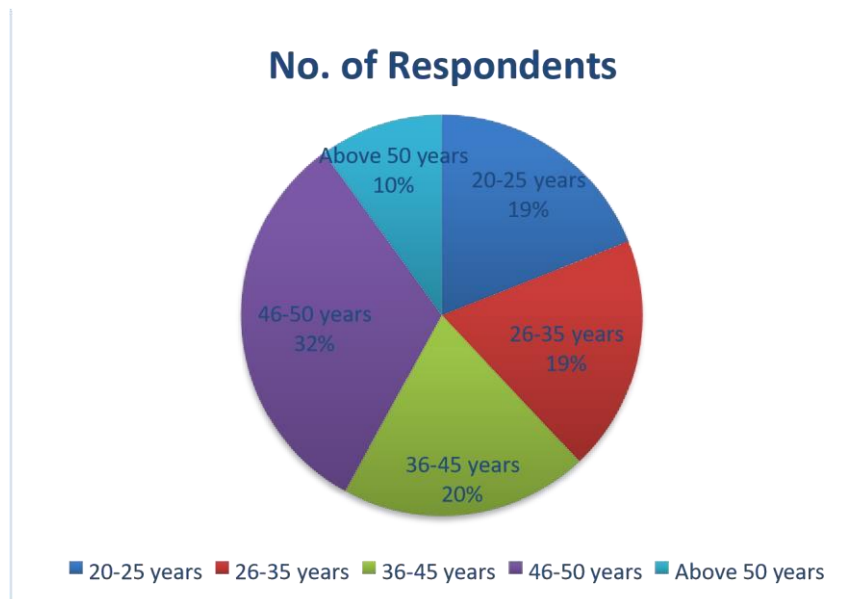
No. of Respondents

Table 3
Education

S. No.	Income	No. of Respondents	Percentage
1	10th	20	20
2	12th	24	24
3	Diploma	9	9
4	UG	32	32
5	PG	15	15
	Total	100	100

Inference:

The above table infers that, 20% of the respondents says 10th, 24% says 12th, 9% says Diploma, 32% says UG and remaining 15% says PG.

Fig 3
Education
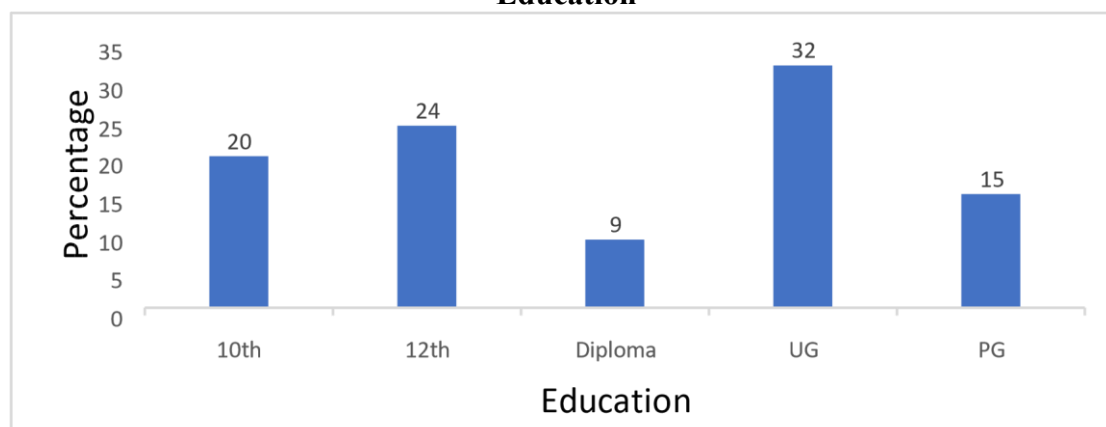
Educational Qualification and Banking and Financial Services Play a Crucial Role in Promoting Industrial Growth - Chi-Square

H0: There is no association between respondent's educational qualification and Banking and financial services play a crucial role in promoting industrial growth

H1: There is association between respondent's educational qualification and Banking and financial services play a crucial role in promoting industrial growth

Table 4

Chi-Square Tests	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.077[a]	12	**.147**
Likelihood Ratio	19.197	12	.084
Linear-by-Linear Association	.204	1	.651
N of Valid Cases	100		
a. 12 cells (60.0%) have expected count less than 5. The minim .16.			

Inference:

As the significant value 0.147 is more than the significant level 0.05 null hypothesis (H0) is accepted.

Hence there is association between respondent's educational qualification and Banking and financial services play a crucial role in promoting industrial growth.

AGE AND AVAILABILITY OF BANK CREDIT DIRECTLY INFLUENCE INDUSTRIAL EXPANSION - CHI-SQUARE

H0: There is no association between respondent's age and Availability of bank credit directly influences industrial expansion

H1: There is association between respondent's age and Availability of bank credit directly influences industrial expansion

Table 5

Chi-Square Tests	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.221[a]	12	**.026**
Likelihood Ratio	26.414	12	.009
Linear-by-Linear Association	3.811	1	.051
N of Valid Cases	100		
a. 12 cells (60.0%) have expected count less than 5. The minim .16.			

Inference:

As the significant value 0.026 is less than the significant level 0.05 null hypothesis (H0) is rejected.

Hence there is association between respondent's age and Availability of bank credit directly influences industrial expansion.

RELATIONSHIP BETWEEN FINANCIAL INSTITUTIONS CONTRIBUTE SIGNIFICANTLY

TO CAPITAL FORMATION IN INDUSTRIES AND ACCESS TO BANKING SERVICES IMPROVES INDUSTRIAL PRODUCTIVITY

HO: There is no significant difference between Financial institutions contribute significantly to capital formation in industries and Access to banking services improves industrial productivity

H1: There is significant difference between Financial institutions contribute significantly to capital formation in industries and Access to banking services improves industrial productivity

Table 6

Particulars	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	5.953	4	1.488	3.139	.018
Within Groups	45.037	95	.474		
Total	50.990	99			

Inference:

From the above shows that there is significant difference between Financial institutions contribute significantly to capital formation in industries and Access to banking services improves industrial productivity significant p value is less than 0.05 One –Sample Test value.018 hence the alternative hypothesis is accepted and the hypothesis is accepted.

LONG-TERM FINANCE FROM BANKS SUPPORTS INDUSTRIAL MODERNIZATION AND WORKING CAPITAL FINANCE IS ESSENTIAL FOR SMOOTH INDUSTRIAL OPERATIONS

HO: There is no significant difference between Long-term finance from banks supports industrial modernization and Working capital finance is essential for smooth industrial operations.

H1: There is significant difference between Long-term finance from banks supports industrial modernization and Working capital finance is essential for smooth industrial operations.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Long-term finance from banks supports industrial modernization Working capital finance is essential for smooth industrial operations	100	1.32	.569	.051
		3.47		.082
	100		.826	

One-Sample Test

	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	Df	Sig. (2tailed)	Mean Difference	Lower	Upper
	-26.465	99	.000	-1.480		-1.37 .74
	6.660	99	.000	.570		

Long-term finance from banks supports industrial modernization Working capital finance is essential for smooth industrial operations					-1.59 .40

Inference:

From the above shows that there is no significant difference between Long-term finance from banks supports industrial modernization and Working capital finance is essential for smooth industrial operations significant p value is less than 0.05 One –Sample Test value .000 hence the alternative hypothesis is rejected and the null hypothesis is accepted.

FINDINGS

- It is found that the survey comprised 52% male and 48% female respondents.
- It is found that the survey table infers that, 19% of the respondents are 20-25 years, 19% are 26-35 years, 20% are 36-45 years, 32% are 46-50 years and remaining 10% are above 50 years.
- It is found that the survey infers that, 20% of the respondents says 10th, 24% says 12th, 9% says Diploma, 32% says UG and remaining 15% says PG.
- It is found that the significant value 0.147 is more than the significant level 0.05 null hypothesis (H0) is accepted. Hence there is association between respondent's educational qualification and Banking and financial services play a crucial role in promoting industrial growth.
- As the significant value 0.026 is less than the significant level 0.05 null hypothesis (H0) is rejected. Hence there is association between respondent's age and Availability of bank credit directly influences industrial expansion.
- It is found that there is significant difference between Financial institutions contribute significantly to capital formation in industries and Access to banking services improves industrial productivity significant p value is less than 0.05 One –Sample Test value.018 hence the alternative hypothesis is accepted and the hypothesis is accepted.
- It is found that there is no significant difference between Long-term finance from banks supports industrial modernization and Working capital finance is essential for smooth industrial operations significant p value is less than 0.05 One –Sample Test value .000 hence the alternative hypothesis is rejected and the null hypothesis is accepted.

CONCLUSION

The perpetration of Green Supply Chain Management (GSCM) practices is essential for businesses to align their operations with environmental sustainability while maintaining competitive advantage and functional effectiveness. As the global focus on sustainability intensifies, associations are decreasingly feting the need to reduce their ecological footmark and grasp environmentally responsible force chain practices. GSCM offers significant benefits, similar as cost savings through resource effectiveness, waste reduction, and energy optimization, as well as enhanced brand character and nonsupervisory compliance.the successful perpetration of GSCM practices presents a range of challenges, including high original costs, lack of knowledge, resistance to change, and the complexity of managing a green force chain across different global requests. Despite these walls, associations that effectively integrate green practices into their force chains can witness both environmental and profitable benefits, contributing to long- term sustainability The study reveals that espousing a strategic,

intertwined approach to GSCM is pivotal for prostrating perpetration challenges. Collaboration among crucial stakeholders including suppliers, manufacturers, guests, and governments is essential to drive sustainability across the entire force chain. also, the relinquishment of advanced technologies, similar as big data analytics, blockchain, and robotization, plays a vital part in enabling the effective shadowing and optimization of green force chain practices. In conclusion, while challenges remain, the growing significance of GSCM for both environmental and business success calls for a further visionary and methodical approach. Companies that successfully apply green force chain practices can place themselves as leaders in sustainability, contributing to a further sustainable future while achieving functional and fiscal success. We studied the need of GSCM and numerous measures have been suggested that will count or help reduce the intensity of the walls in administering the GSCM. " leafage " awareness in India is below the average line, which indicates that, there's a need to spread the GSCM mindfulness among the Indian assiduity, which may ameliorate the provident performance and reduce environmental pollution by conforming GSCM. GSCM gives competitive edge and improves the profitable status of an association. Effective Performance of GSCM leads to reduce in waste, reduce in environmental hazard, development of resource management and reduce in costs. There is a lower compass for further disquisition in GSCM either it be a qualitative or quantitative or exploratory or longitudinal study so as to drive pots in espousing.

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A STUDY ON THE SOCIO-ECONOMIC CONSEQUENCES OF INCREASING GOLD RATES ON MIDDLE-CLASS AND LOWER-CLASS CONSUMERS

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ABSTRACT

Gold has traditionally been regarded as a secure investment and a symbol of wealth in India, especially among middle- and lower-income households. However, the persistent increase in gold prices over the last decade has significantly altered consumption, savings, borrowing behavior and socio-economic stability of these groups. This study aims to analyze the socio-economic consequences of increasing gold rates on middle- and lower-class consumers with special reference to purchasing power, investment preferences, household savings, debt patterns, and cultural practices. The study adopts a descriptive research design using primary data collected through a structured questionnaire from 100 respondents belonging to middle- and lower-income groups. The findings reveal that rising gold prices have reduced affordability, increased reliance on loans and substitutes, and shifted consumer preference towards alternative financial instruments. The study provides insights for policymakers, financial planners, and households to address economic vulnerabilities arising from volatile gold prices.

KEYWORDS: Gold Price Inflation, Socio-Economic Impact, Middle Class Consumers, Lower Income Groups, Purchasing Power, Investment Behavior

INTRODUCTION

Gold occupies a unique position in the Indian economy as both a cultural asset and a financial instrument. It is widely used for investment, savings, weddings, and religious purposes. For middle- and lower-class households, gold often acts as a form of financial security during economic uncertainties. However, the continuous rise in gold prices due to global economic instability, inflation, currency fluctuations, and speculative demand has created economic pressure on these income groups.

The increasing gold rate has affected household budgets, reduced consumption capacity, increased indebtedness, and altered traditional practices. This study examines how rising gold prices influence socio-economic conditions, particularly among consumers who are more sensitive to price fluctuations.

OBJECTIVES OF THE STUDY

- To examine the trend of increasing gold prices and its impact on middle- and lower-class consumers.
- To analyze the effect of rising gold rates on purchasing power and household savings.
- To study changes in investment and consumption behavior due to increased gold prices.
- To assess the socio-economic challenges faced by consumers due to unaffordable gold prices.
- To suggest measures to mitigate the adverse effects of rising gold rates.

STATEMENT OF THE PROBLEM

Despite being a traditional store of value, the rapid and continuous increase in gold prices has created affordability issues for middle- and lower-class consumers. Rising gold prices have reduced purchasing power, increased borrowing for gold purchases, and forced households to compromise on social and cultural obligations. This study attempts to analyze the socio-economic consequences of increasing gold rates and the extent to which they affect the financial stability and lifestyle of middle- and lower-class consumers.

SIGNIFICANCE OF THE STUDY

- The study helps understand the financial stress caused by rising gold prices on vulnerable income groups.
- It provides insights for policymakers to frame balanced gold import and taxation policies.
- It aids financial institutions in designing alternative investment products for low-income groups.
- The research contributes to academic literature on commodity price inflation and household economics.
- It supports consumers in making informed financial decisions regarding gold investments.

REVIEW OF LITERATURE

Rao, V. (2020) Socio-Economic Implications of Commodity Price Inflation in India
The study examines the broader impact of commodity price inflation, including gold, on lower income households. It reveals that inflation in essential commodities reduces discretionary spending and increases financial vulnerability.

Singh, A. & Verma, N. (2021) Changing Consumption Pattern of Gold in India
This study highlights changing consumption patterns due to rising gold prices. It finds that consumers increasingly prefer lighter ornaments, imitation jewelry, and digital gold to cope with high prices.

Joseph, M. (2022) Gold Price Volatility and Household Debt: An Empirical Study
The research establishes a positive relationship between gold price increases and household debt levels, especially among lower income groups who rely on loans for social and ceremonial gold purchases.

HYPOTHESES OF THE STUDY

H_{01}: There is no significant relationship between increasing gold prices and purchasing power of middle- and lower-class consumers.

H_{03}: Increasing gold prices have no significant impact on investment preferences of consumers.

RESEARCH METHODOLOGY

A Research has to come under a 'Descriptive' type of research. Convenient Sampling was selected for this study to find out the Socio-Economic Consequences of Increasing Gold Rates on Middle- Class and Lower-Class Consumers. The Questionnaire was prepared to collect the data. The questionnaire was distributed to 50 respondents has been selected for the researchers convenient. Primary data was collected from the customer through a questionnaire.

Secondary data is collected from past research, journals and websites. The collected data has been analyzed through SPSS Percentage analysis and Chi Square test ANNOVA has been applied to find the result of the study.

ANALYSIS AND INTERPRETATION

Table 1
Demographic Profile of the Respondents

Demographic variables	Category	Frequency	Percentage
Gender	Male	54	54
	Female	46	46
	Total	**100**	**100**
Age (in years)	Below 25 Years	18	18
	25-35 years	32	32
	36-45 Years	30	30
	Above 45 Years	20	20
	Total	**100**	**100**
Educational qualification	School Level	28	28
	Graduate	42	42
	Post graduate	22	22
	Others	08	08
	Total	**100**	**100**
Occupation	Salaried	36	36
	Self – Employed	24	24
	Daily Wage Earners	26	26
	Home Maker	14	14
	Total	**100**	**100**
Monthly Family Income	Below Rs. 20,000	34	34
	Rs. 20,001- Rs.40,000	38	38
	Rs. 40,001- Rs.60,000	20	20
	Above Rs. 60,000	08	08
	Total	**100**	**100**

Sources: Primary Data

Interpretation

The demographic analysis reveals that a majority of respondents 54% are male. Most respondents belong to the economically active age group of 25-45 years (62%), indicating higher exposure to financial responsibilities. A significant portion of respondents (72%) fall under school and undergraduate education, reflecting the middle and lower socio-economic background. Nearly 72% of respondents earn below Rs. 40,000 per month, confirming the study's focus on middle- and lower-income groups who are more sensitive to rising gold prices.

Chi-Square
Table 2

Null Hypothesis (H_0): There is no significant relationship between increasing gold prices and purchasing power of middle- and lower-class consumers.

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.462[a]	4	.001
Likelihood Ratio	16.973	4	.002
N of Valid Cases	100		

Since the p-value (0.001) is less than 0.05, the null hypothesis is rejected. This indicates a significant relationship between increasing gold prices and reduced purchasing power of middle- and lower-class consumers.

ANOVA

Table 3

H_{03}: Increasing gold prices have no significant impact on investment preferences of consumers.

One-Way ANOVA – Gold Price Impact on Investment Preference

Source of Valuation	Sum of Squares	Df	Mean Square
Between Groups	124.580	3	41.527
Within Groups	641.420	96	6.681
Total	766.000	99	

Since the significance value (0.001) is less than 0.05, the null hypothesis is rejected. Gold price increases significantly influence consumers to shift investment preferences towards alternatives like FDs, mutual funds and digital gold.

FINDINGS

1. Increasing gold prices significantly reduce purchasing power of middle- and lower-class consumers.
2. Rising gold rates adversely affect household savings and financial security.
3. Consumers are shifting from physical gold to alternative investments due to affordability issues.
4. High gold prices have increased dependency on loans and borrowing.

SUGGESTIONS

1. Government should promote affordable gold investment options such as Soverign Gold Bonds and digital gold
2. Financial literacy programs should educate consumers on alternative investment avenues.
3. Households should prioritize long-term financial planning over ceremonial spending.
4. Financial institutions should offer low interest loans and gold linked savings schemes for low-income groups.
5. Policymakers should regulate gold imports and taxation to control price volatility.

CONCLUSION

The study concludes that the continuous increase in gold prices has serious socio-economic consequences for middle- and lower-class consumers. Reduced affordability, declining savings, increased debt, and altered investment behavior are key outcomes of gold price inflation. While gold remains culturally significant, its rising cost has forces consumers to reassess traditional practices and financial priorities, the study emphasizes the need for policy intervention, financial awareness and diversified investment strategies to safeguard economically vulnerable households.

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CONSUMER PREFERENCES TOWARDS ORGANIC FOOD PRODUCTS IN TIRUCHIRAPPALLI, TAMILNADU

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ABSTRACT

Due to their natural ingredients, most consumers now view organic products as healthier. Organic produce is grown without artificial chemicals, fertilizers, or pesticides. Though it is still in its infuriating stages, India's organic food market is beginning to grow quickly. In addition to concerns about safety, human health, and the environment, consumers also favor organic food because they place a high value on its nutritional content, flavor, freshness, and appearance. The nature of this study is descriptive. Using a well - structured questionnaire, 235 respondents were interviewed using a stratified simple random sampling technique. According to survey data, people would rather purchase organic food. When comparing the preference for organic food among female respondents, there are a number of factors to consider. Organic food is preferred by respondents who are more than educated. When it comes to food, people between the ages of 35 and 45 prefer to purchase organic. Additionally, those who make between Rs. 20,001 and Rs. 40,000 a year prefer to purchase organic food. Due to their preference for fresh fruits and vegetables, consumers prefer to purchase organic food. Reasons for selecting it included taste, safety, environmental protection, and healthfulness.

KEYWORDS: Consumer Preference, Organic food products and Environmental

INTRODUCTION

Today, India's customary farming practices are known as organic farming. The organic market has expanded significantly over the last few decades, and consumers are increasingly choosing organic products as a result of rising awareness of issues related to quality, safety, and the environment as well as health. The biggest exporter of organic goods is now India. Conversely, there is a growing demand for organic products in India. In order to prevent health issues, consumers are more interested in purchasing organically grown goods that are devoid of chemical pesticides and fertilizers. Because of their inherent flavor and nutritional value, organic products are favored over conventional ones and are thought to be the healthiest for human consumption. We would rather purchase goods that are long-lasting and don't require additives. That is why organic stores are constantly expanding. The Indian government

encourages organic farming by providing financial assistance to farmers who implement it under different government programs. This is anticipated to be a key trend driving the expansion of the organic food market in India. The Indian market for organic food was projected to be valued USD 849.5 million in 2020. Between 2021 and 2026, the market is expected to grow at a compound annual growth rate (CAGR) of about 20.5%, reaching a projected valuation of about USD 2601 million at that point.

REVIEW OF RELATED LITERATURE

Gnanamani and Padhmanaban's (2025), This study reveals that Consumer Preference Towards Select Organic Food Products in Trichirappalli District in Tamil Nadu, examines consumer awareness of organic food products using primary data collected from 400 respondents through a structured questionnaire. Employing statistical tools such as percentages, mean, standard deviation, coefficient of variation, and chi-square analysis, the study finds that consumers exhibit high awareness of the appearance, availability, certification, and pricing of organic food products. However, awareness remains low regarding perishability, immunity-related benefits, medicinal value, and product durability. Overall, the study contributes useful insights into consumer awareness patterns in a regional Indian context and highlights the need for greater consumer education on the health and functional benefits of organic food products.

Sachdev N., and Sindhwani A. (2025), examined the behaviour of urban households in Ludhiana, Punjab—a fast-growing Tier-2 city-towards the consumption of morganic food products. The research was grounded in a descriptive design and employed a quantitative methodology using questionnaires. The findings of the study revealed that internal drivers like health consciousness and environmental concern were positively associated with higher purchase intent, while barriers such as price sensitivity and limited product availability hinder consistent consumption. Trust in certification and digital marketing influenced purchase behavior significantly, especially among younger, socially aware consumers.

Gupta L., et al (2025), analyzed consumer behaviour towards organic food products in Udaipur, Rajasthan. The study concluded that while there was a strong awareness and positive perception of organic products among the student population, affordability and accessibility remain barriers to broader adoption. Strategic awareness campaigns and policy interventions could further promote organic food consumption. The finding implies the need for strategic awareness campaigns, improvement in supply chain and policies related to organic food so that organic food becomes more affordable and accessible. Future research could explore impacts of awareness programme, consumer trust in certification of organic products to bridge the gaps.

Dr. M. Anto Soniya (2024), The study "A Survey Towards Consumer Attitudes and Preferences for Organic Food Products in Tirunelveli District" provides a timely and relevant examination of consumer behaviour toward organic food in a regional Indian context, reflecting growing concerns about health, food safety, and sustainability. With a robust sample of 630 respondents and the use of both primary and secondary data, the study demonstrates strong methodological rigor through advanced statistical tools such as Factor Analysis, ANOVA, Henry Garrett Ranking, and non-parametric tests. The findings highlight consumer attitude as the primary determinant of organic food purchasing behaviour, supported by a well-fitting factor model with strong goodness-of-fit indices, while also identifying high prices and limited availability as key barriers to wider adoption.

Devi, C. T., & Chitra, C. (2024), this empirical study explores the factors influencing consumers' purchase intentions toward organic foods. It specifically examines how environmental concern, health consciousness, lifestyle choices, and product quality impact consumers' preferences for organic products. The findings indicate that the quality of organic foods, along with heightened awareness of environmental and health issues, significantly drives purchasing decisions. Moreover, lifestyle choices play a critical role in motivating consumers to opt for organic options. Overall, the study underscores the importance of these factors in

shaping consumer behavior in the organic food market, highlighting the need for marketers to emphasize product quality and communicate the health and environmental benefits of organic foods to align with consumer values and preferences.

Kanchana, K., & Kannan, V.(2023), The growing emphasis on consumer attitudes and preferences towards organic food products reflects a broader societal shift towards health consciousness and environmental sustainability. As concerns surrounding food production practices escalate, understanding consumer motivations becomes crucial for the organic food market, particularly in regions like India, where this sector is experiencing significant growth. The outlined goals of the study, including examining the interplay between demographic factors, consumer awareness, satisfaction, and the propensity to recommend organic products, are essential to unveil the complexities of consumer behavior in this domain. By integrating a conceptual framework that links consumer awareness to preference, satisfaction, and advocacy, this research not only addresses existing knowledge gaps but also emphasizes the importance of consumer perceptions in shaping market dynamics. This literature assessment serves to highlight the necessity for further exploration of consumer decision-making processes and the influences that guide their choices towards organic food, ultimately contributing to a deeper understanding of the market landscape and potential strategies for increasing organic food adoption.

Witold Kozirok, et al., (2023), tried to investigate and determine the attitudes and preferences towards organic foods and the types and significance of the desired factors determining the satisfaction of customers who purchased organic foods products. There were 150 customers in the sample. The gathered data was analyzed using statistical tools like the chi-square test, mean, and percentage analysis. According to the study, people who buy organic food tended to have positive attitudes with a tendency toward neutral attitudes. Consumer satisfaction was primarily influenced by four key food attributes: taste, short shelf life, health benefits, and the perception that organic foods contain fewer pollutants. Based on the findings, the primary places of purchase were found to be specialty stores, supermarkets, bargain stores, and organic food producers. For the respondents, promotional qualities were the least important factor.

Sivarajani, R., & Thayamamal, I. P. R. (2022), The organic food market in India is experiencing rapid growth as consumers increasingly view organic products as healthier options due to their natural composition—grown without fertilizers, artificial chemicals, or pesticides. This descriptive study utilized a stratified simple random sampling method, interviewing 80 respondents with a structured questionnaire. Findings indicate that preferences for organic foods vary among demographics, with educated consumers, particularly those aged 35-45 and earning between Rs. 20,001 and Rs. 40,000, showing a higher inclination towards organic purchases. Key reasons for this preference include the freshness of products, perceived health benefits, safety, taste, and environmental protection. Overall, the research highlights significant factors influencing consumer choices in the organic food sector**.**

NenadPeric, et al., (2022), tried to find the attitude of the people in Croatia and Serbia about Organic farming potentials. The aim of this research was to investigate the association between socio-demographic variables and attitudes of respondents from Serbia and Croatia towards organic food. Quantitative methods of research were used in this study. This study's descriptive analysis included the use of multiple linear regression, ANOVA, percentages, arithmetic means, chi-square tests, t-tests, and Pearson correlation coefficients. Furthermore, when it came to choosing organic products, consumers had demonstrated a high level of self-awareness, which underscored the significance of brand communication at the point of sale.

Meena, C., & Banu, M. A. P. (2020), Over the past decade, the organic market has experienced significant growth, driven by an increasing awareness among consumers regarding the benefits of organic products. This rising interest is largely attributed to health concerns and

environmental considerations, as consumers recognize the nutritional value, taste, freshness, and other desirable attributes of organic foods. The objective of this research is to analyze the factors influencing consumer purchasing decisions for organic products, specifically focusing on respondents' attitudes, preferences, and valuable suggestions. The study is based on original data collected through a structured questionnaire, surveying 100 respondents. By examining consumer preferences in Tiruchirappalli city, this research aims to provide insights into the motivations behind the shift towards organic products, further contributing to the understanding of consumer behavior in the organic market.

Wahyudi David., and Ardjansyah. (2021), this study investigates the young consumers' perception towards organic food in Indonesia. A total of 253 respondents provided data, with ages ranging from 17 to 23. According to the findings, consumers believe that organic food products are safer, healthier, and of higher quality than conventional food. The supermarket is the best place to purchase the product. These discoveries help retailers and vendors as well as those creating marketing plans to attract new customers.

R. Ayswarya, Dr. S. Vasanthi (2018), Organic farming has rapidly developed in recent years, with a notable increase in consumer interest and preference for organic products, reflecting a shift in food choices. This research, utilizing a descriptive approach and stratified simple random sampling of fifty respondents, reveals that 52% are under 30 years old, and 76% are female, highlighting a youthful and predominantly female consumer base. Additionally, 70% of respondents are either employed or engaged in business, suggesting that working individuals increasingly prioritize organic options. With 74% reporting purchases of organic products within the past year, the study indicates that consumer preferences are primarily motivated by nutrition, health benefits, and taste. Overall, these findings emphasize the importance of understanding consumer preferences in driving the growing demand for organic products and contribute to the discourse on organic farming and consumer behavior.

Bo Chen and Sayed Saghaian (2017), conducted research about consumer preference towards organic food can affect choice of retailing format in California. They concluded from that study that organic consumers are supporting organic specialty and discount stores more. For retailers, this has significant managerial implications.

R. Mohanasoundari & N. Sathya (2017), conducted a study on customer preference towards natural organic products in Tirupur city. Additionally, no industrial solvents, radiation, or chemical food additives are used in the processing of organic foods. preventing a lot of diseases and improving our quality of life. Three hundred people participated in the survey. The researcher used percentage, rank analysis, and the Chi-square test to analyze the survey data. The customers' intention to buy organic products was further supported by the information that was readily available about them. It would likely be easier for organic product marketers to create effective communication and advertising strategies if they had a better understanding of consumers' perceptions of organic products based on their purchasing motivations.

T. Mohanasoundari , A. Kalaivani (2016), According to the study's caption, people were aware of images and availability of organic food products, but they weren't totally devoted to them. There's no denying that the respondents were drawn to organic food items. Therefore, in order to be successful in marketing organic food products, marketers must develop promotions that are both morally and realistically sound, and they must also ensure that the product is available in both large and varied quantities.

Mahadevappa and Mokshapathy (2015), assessed the Consumer Awareness and Preference towards Organic Vegetables. The study investigated the level of consumer awareness regarding organic vegetables in the Karnataka district of Belagavi. Using a structured questionnaire approach, he gathered data from sixty consumers of organic vegetables. Of these, ninety percent reported that eating vegetables grown organically protects their health, and eighty-seven percent said that organic vegetables are tastier than those grown chemically.

86.67% of consumers believed that vegetables grown organically had a longer shelf life. A percentage of the consumers expressed their opinion that vegetables labeled as organic are healthier.

Brijesh Sivathanu (2015), According to his study, consumers prefer organic food because it is safer, better for the environment, and human health. It also matters to them because organic food has higher nutritional value, tastes better, is fresher, and looks nicer. Research indicates that when compared to male respondents, females exhibit a greater preference for organic food products. Educated respondents are more likely to prefer purchasing organic food items. When compared to other age groups, the 29–39 age group prefers to purchase organic foods. Higher income groups also prefer purchasing organic food.

Shanmugapriya K.S., Gopal S. Murali, Swaminathan B (2014), According to their study, consumers who are older, more educated, and have higher incomes are more likely to buy organic vegetables. The primary limitation was thought to be the cost of the produce, which was followed by insufficient supply and ignorance.

SIGNIFICANCE OF THE STUDY

The domestic market for organic products from India is expanding. Consumer tastes and preferences have changed as a result of growing awareness, driving up demand for organic goods both domestically and abroad. For a variety of reasons, including environmental impact, chemical-free products, and health concerns, consumers choose organic over conventional goods.

As a result, the purpose of this survey is to learn more about the respondents' demographics and preferences for organic goods.

STATEMENT OF THE PROBLEM

Global demand for organic food has surged in the last ten years due to growing consumer concerns about food safety, health, and the environment, including in developing nations like India. Growing consumer demands for high-quality products that are good for the environment and their health are driving the growth of organic agriculture. It is imperative to comprehend the preferences of customers. Thus, the researcher is attempting to depict the Tiruchirappalli District consumer's preference for organic food products.

OBJECTIVES OF THE STUDY

1. To examine the Tiruchirappalli District's consumer demographic profile.
2. To investigate the factors that lead consumers in the study area to choose organic food items.
3. To conduct a study on Tiruchirappalli District consumer preferences for organic food products.

RESEARCH METHODOLOGY

Data Collection

First-hand information obtained from respondents through the use of a structured questionnaire is known as primary data. The primary data was obtained by the researcher via the survey method.

Secondary data are those that have previously been gathered and subjected to statistical analysis by another party. Data for this study was gathered from a variety of secondary sources, including books, magazines, newspapers, the internet, reports, publications, and journals.

Sampling Design:

235 respondents provided data for this study, which was conducted using a random sampling technique.

Sampling Size:

There are 235 responders in the research sample.

DATA ANALYSIS

Factors such as gender, age, marital status, level of education, type of job, monthly

income, and size of family are used to analyze the demographic profile. The analysis's findings are talked about below.

Table 1
Demographic Profile of the Respondents

Variables	No. of the Respondents	Percentage
Gender wise classification		
Male	78	33.2
Female	136	57.9
Transgender	21	8.9
Age-wise classification		
Below25 years	39	16.6
25-35 years	67	28.5
35-45 years	102	43.4
45-55 years	15	6.4
Above55 years	12	5.1
Educational qualification-wise classification		
Illiterate	29	12.3
Under graduate	134	57
Post graduate	49	20.9
Professional	23	9.8
Occupation-wise classification		
Professional	13	5.5
Private employee	83	35.3
Government employee	47	20
Own Business	58	24.7
Others	34	14.5
Monthly income-wise classification		
BelowRs.20,000	56	23.8
Rs.20,001to Rs.40,000	132	56.2
Rs.40,001 – Rs.60,000	28	11.9

AboveRs.60,000	19	8.1
Family type wise classification		
Nuclear family	168	71.5
Joint family	67	28.5
Size of family members		
2-4 members	127	54
4-5 members	47	20
More than 5 members	61	26

Source: Primary data

According to the above table, 33.2% of respondents are men. Women make up 57.9% of the responders. Of the respondents, 8.9% identify as transgender. 16.6% of the respondents are younger than 25 years old. Ages 25 to 35 account for 28.5% of the respondents. Of the respondents, 43.4% are between the ages of 35 and 45. Among the respondents, 6.4% fall into the 45–55 age range. 5.1% of the participants are older than 55 years of age. 12.3% of that surveyed lack literacy. 57% of those surveyed are recent graduates. Twenty.9% of those surveyed have advanced degrees. 9.8% of those surveyed work in a profession. Professional work makes up 5.5% of the respondents' occupation.35.3% of those surveyed work for private companies. Employees of the government make up 20% of the sample. Of the respondents, 24.7% run their own company. Among the respondents, homemakers make up 14.5%. Of the respondents, 23.8% have incomes under Rs. 20,000. 56.2% of those surveyed earn between Rs. 20,001 and Rs. 40,000. 11.9% of those surveyed have incomes between Rs. 40,001 and Sixty thousand. 8.1% of those surveyed make more than Rs. 60,000 per year. Among the respondents, nuclear families make up 71.5%. Among the respondents, joint families.

Reason For Choosing Organic Food Products:

Table 2
Reason for choosing the organic products

Reason for choosing organic food products	No. of Respondents	Percentage
Quality	43	18.3
Price	24	10.2
Health	63	26.8
Taste and Safety	61	26
Environmental welfare	44	18.7
Total	235	100

Source: Primary data

Table 2 reveals that of the 235 respondents, 63 (26.8%) chose organic food products for health reasons, 61 (26%) for taste and safety reasons, 44 (18.7%) for environmental welfare reasons, 43 (18.3%) and 24 (10.2) for quality and price reasons.

Preference To Buy Organic Products

Table 3
Fried Man Test

Variables	Mean rank	Chi-Square Value	P Value
Fresh vegetables and fruits	5.00		
Cereals and pulses	3.92		
Tea and coffee	4.74		
Edible oil	3.79	**69.852**	**0.000****
Milk and Milk Products	4.87		
Honey	4.66		
Dried fruits and nuts	4.73		
Meat products	4.29		

Source: Computed primary data
**denotes significant level at 1% level

Table 3 shows that the test's P-Value for the mean rank of the organic goods you prefer to purchase is less than 0.01. Consequently, at the 1% level, the null hypothesis is rejected. It was found that there were disparities in the respondents' rankings of their preferred brands of organic goods. The most significant factor influencing consumers' preference to purchase organic food products, according to mean score, is fresh vegetables and fruits (5.00). This is followed by milk and milk products (4.87), tea/coffee (4.74), dried fruit and nuts (4.73), honey (4.66), meat products (4.29), cereals and pulses (3.92), and edible oil (3.79).

FINDINGS

The majority of those surveyed are women.

- The age range of 102 (43.4%) responders is 35–45. A total of 134 respondents, or 57%, have a college degree.
- Of the respondents, 83 (35.3%) are individual workers.
- Of the respondents, 132 (56.2%) earn between Rs. 20,001 and Rs. 40,000 per month. Among the respondents, 168 (71.5%) belong to nuclear families.
- Among the 127 (54%) respondents, two to four family members are involved. Due to the health advantages of organic food, 63 respondents, or 26.8%, preferred it.
- According to the Friedman test results, fresh fruits and vegetables are the most favored organic food items, followed by milk and milk derivatives.

CONCLUSION

It is evident that consumers favor organic food, and a variety of factors, including consumer demographics, influence their preferences. It has been noted that female respondents favor organic foods more than male respondents do. More and more educated respondents said they would rather purchase organic food. Compared to other age groups, the 35 to 45-year-old group prefers to purchase organic food. Moreover, 132 of the study respondents make between Rs 20,001 and Rs 40,000. Because they believe organic food to be safer, healthier, and more environmentally. Marketers utilize Marketing Mix to make organic products easily accessible to consumers in an effort to encourage them to purchase organic food. According to Friedman's test, the most favored organic food items are fresh fruits and vegetables, followed by milk and

milk derivatives. An old proverb states that "good food leads to good thoughts, and good thoughts lead to good deeds." Therefore, you can build a solid foundation for reaching a better generation by embracing organic foods.

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A STUDY ON CUSTOMER SATISFACTION TOWARDS RELIANCE SMART BAZAAR IN TRICHY

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ABSTRACT

Customer satisfaction is an important factor that determines the growth and long-term success of organized retail businesses. Reliance Smart Bazaar has emerged as one of the popular retail chains in India by offering products at affordable prices and maintaining a wide product assortment. This study examines the level of customer satisfaction towards Reliance smart Bazaar with special reference to Trichy City. The research considers key aspects such as quality of products, pricing policy, store arrangement, availability of goods, billing efficiency, service provided by staff, and overall shopping experience. Data for the study were collected from customers through a structured questionnaire and analyzed using suitable statistical techniques. The results indicate that a majority of customers are satisfied with Reliance Smart Bazaar, mainly due to its low prices and consistent product offer availability. However, issues related to crowd control and waiting time at billing counters were identified as areas to be in need improvement. The study offers practical suggestions to improve service quality and enhance more customer satisfaction at Reliance Smart Bazaar.

KEYWORDS: Customer Experience, Retail Industry,Reliance Smart Bazaar Quality of Service, Buying Behaviour,

INTRODUCTION

The retail sector in India has grown rapidly in recent years as a result of changing consumer habits, rising income levels, and increased urban development. India's retail sector in 2025 is booming,driven by strong domestic consumption, rapid digital adoption (especially quick commerce and D2C), premiumisation of growth in Tier II/III cities, with significant investments & expansion in modern retail formats like malls, while major players like Reliance Retail invest heavily in technology and private Labels, facing challenges like inflation but seeing high demand across fashion, luxury, & essential goods, setting the stage for continued strong growth towards a projected nearly $2 trillion market by 2030. Reliance Smart Bazaar is a prominent organized retail chain in India, well known for its focus on affordable pricing and availability of everyday essentials under one roof. The store meets the regular needs of

consumers by offering groceries, household items, clothing, and other daily-use products at reasonable prices. Its value-oriented approach has helped Reliance Smart Bazaar attract customers from various income groups and establish a strong presence in the retail market.

In Trichy City, Reliance Smart Bazaarhas become a popular shopping destination among consumers. However, the presence of competing retail chains and the evolving expectations of customers make it important to regularly assess their level of satisfaction. Elements such as the quality of products offered, pricing policy, store arrangement, behavior of employees, speed of the billing process, and management of customer crowd greatly influence the overall shopping experience. A clear understanding of customer satisfaction enables retailers to recognize their strengths and identify areas that require improvement for better service delivery.the purpose of this study is to examine the level of customer satisfaction towards Reliance Smart Bazaarwith special reference to Trichy City. The results of the study will assist the management in gaining a better understanding of customer opinions and expectations, thereby enabling them to take appropriate steps to improve service quality and increase overall customer satisfaction.

REVIEW OF LITERATURE

Mithra and Pirakatheeswari (2025) explored customer satisfaction in large retail chains and identified pricing strategy and promotional offers as major influencing factors. The study concluded that understanding customer expectations helps retailers improve service quality and remain competitive

Anitha and Prakash (2024) studied consumer behavior towards supermarket chains in Tamil Nadu and found that convenience, location, and availability of daily essentials are key reasons for customer preference. The study suggested that retail stores should focus on improving customer service to maintain satisfaction

Ghadge, Dixit, and Madhavi (2023) examined customer satisfaction in organized retail outlets and concluded that store layout, product display, and employee behavior have a strong impact on customer perception. The researchers emphasized that customer satisfaction leads to repeat purchases and long-term loyalty.

Kumar and Rajesh (2022) analyzed customer satisfaction towards Reliance Smart Bazaar and observed that competitive pricing, wide product range, and cleanliness of the store play a major role in attracting customers. The study also revealed that efficient billing systems and staff responsiveness improve the overall shopping experience.

Shobika and Guna Sundari (2021) conducted a study on customer satisfaction in organized retail stores and found that factors such as product availability, pricing, and service quality significantly influence customer satisfaction. Their study highlighted that customers prefer retail stores that offer quality products at reasonable prices along with a pleasant shopping environment.

IMPORTANCE OF THE STUDY

Customer satisfaction plays a crucial role in the growth and long-term stability of retail businesses. In a competitive organized retail environment, gaining a clear understanding of customer expectations and opinions enables retailers to improve service quality and build lasting customer relationships. This study is significant as it helps to understand how customers in view Reliance Smart Bazaar and identifies the key factors that influence their level of satisfaction.

STATEMENT OF THE PROBLEM

The organized retail industry in India has become increasingly competitive as more retail chains enter the market and consumer preferences continue to change. Reliance Smart Bazaarhas gained a strong market position by providing essential products at reasonable prices and meeting the everyday needs of customers. However, even with its popularity in , customer

expectations related to service quality, store facilities, billing speed, and overall shopping experience are constantly evolving.

SCOPE OF THE STUDY

This study is conducted to assess the level of customer satisfaction towards Reliance Smart Bazaar, focusing specifically on. It examines different factors that influence the shopping experience, such as product quality, pricing, store layout, availability of items, billing process, staff behaviour, and overall service standards. The research aims to gain insights into customers' perceptions, preferences, and expectations while shopping at Reliance Smart Bazaar, helping to understand what drives satisfaction and loyalty.

OBJECTIVES OF THE STUDY

- To determine the majar factors which influence the customer satisfaction and loyalty at Reliance Smart Bazaar.
- To assess customer satisfaction with respect to product quality, availability, pricing, special offers, and work environment.
- To suggest measures to boost the sales in Reliance Smart Bazaar.

DATA COLLECTION

For this study, primary data was collected using a well-prepared questionnaire to understand customer satisfaction at Reliance Smart Bazaar. Secondary data was collected from website, magazines and annual report by the company.

SAMPLE DESIGN

This study adopts a Random sampling method to collect data. A total of 50 Reliance Smart Bazaar customers from Trichy City were selected as the sample. The respondents include different age groups, income levels, and shopping habits to provide a well-rounded understanding of customer satisfaction at Reliance Smart Bazaar.

TOOLS OF ANALYSIS

The data collected from the respondents is analyzed using appropriate statistical methods. The responses were organized and processed with the help of SPSS 23 software. Descriptive statistics, including frequency distributions, percentages, and charts, were used to present and interpret the results. These tools help in identifying patterns in customer satisfaction and provide meaningful insights for further analysis. Inferential analysis such as chi- square test were used for the analysis of data

LIMITATIONS OF THE STUDY

- The study focuses only on Reliance Smart Bazaar customers in Trichy City and does not include other retail stores or locations.
- The sample size of 50 respondents may not fully represent the opinions of all D-Mart customers.
- The research is based on primary data collected through questionnaires, which could be affected by respondents' personal feelings or attitudes.
- Time and resource constraints limited the number of customers surveyed and the depth of analysis.

Table 1
Demographic Distribution of Respondents

S.No	Particulars	Frequency (50)	%
1	**Age:**		
	Below20Years	6	12
	21-30years	22	44
	31-40years	13	26
	41-50years	6	12
	Above50year	3	6

2	Gender:		
	Male	22	44
	Female	28	56
3	**Education qualification:**		
	HSC	8	16
	Graduate	15	30
	Post graduate	17	34
	Professional	5	10
	Diploma	5	10
4	**Occupation:**		
	Private sector	14	28
	employee	9	18
	Government employee	8	16
	Business	10	20
	Homemaker	9	18
	Student		
5	**Monthly income:**		
	Below Rs.15000	13	26
	Rs.15001-30000	15	30
	Rs.30001-50000	11	22
	Above Rs.50000	11	22

Source:Primary data

It is clear from the above table that Majority of the respondents (40%) are in the age group of 21-30years. 56% of respondents are female and 34% are post graduate. Majority of 28% private sector employee, a monthly income maximum 3% income range Rs 15001-30000.

Table 2
Age of The Respondents

Valid	Frequency	Precent	Valid precent
Below 20 years	6	12	12
21-30 years	22	44	44
31-40 years	13	26	26
41-50 years	6	12	12
Above50 years	3	6	6
Total	**50**	**100**	**100**

Table 3
Overall satisfaction level of the respondents

Particulars	Frequency	Percent
Highly satisfied	11	22.0
Satisfied	13	26.0
Neutral	12	24.0
Dissatisfied	8	16.0
Highly dissatisfied	6	12
Total	**50**	**100**

Null hypothesis

There is no significant relationship between Age and customer satisfaction of Reliance Smart Bazaar.

Alternative hypothesis

There is a significant relationship between Age and customer satisfaction of Reliance Smart Bazaar.

Chi-square test	Value	df	Asymp.Sig.(2-sided)
Pearson chi-square test	12.367	8	0.138

The chi-square test was conducted at the 5 per cent level of significance to examine whether age has any influence on the overall satisfaction of customers towards Reliance Smart Bazaar. The obtained significance value of 0.136 is higher than the prescribed level of 0.05, indicating that the relationship is not statistically significant. Hence, the null hypothesis is accepted. This result reveals that age does not play a major role in determining customer satisfaction, and customers from different age groups are equally satisfied with the services and offerings of Reliance Smart Bazaar

CONCLUSION

The present study on customer satisfaction towards Reliance Smart Bazaar. indicates that the store has been largely effective in fulfilling the needs and expectations of its customers. The results show that affordable pricing, satisfactory product quality, wide availability of goods, and a well-organized store layout contribute significantly to customer satisfaction. Overall, customers reported a pleasant and satisfactory shopping experience at Reliance Smart Bazaar

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A STUDY ON CUSTOMER SATISFACTION TOWARDS ONLINE BANKING PLATFORMS

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ABSTRACT

The rapid growth of online banking services has transformed how customers interact with financial institutions. This paper explores the determinants of customer satisfaction in online banking platforms, focusing on service quality, ease of use, security, customer support, and transaction efficiency. A quantitative study was conducted using a structured questionnaire distributed to 300 online banking users. The results reveal that perceived security and service quality significantly influence user satisfaction, while ease of use and customer support also play constructive roles. The findings offer insights for banks to enhance digital platforms and elevate user satisfaction, ultimately increasing customer loyalty.

KEYWORDS: Online Banking, Customer Satisfaction, Digital Banking, Service Quality, Security.

INTRODUCTION

The advent of internet technologies has revolutionized banking operations, primarily through the introduction of online banking services. Financial institutions now offer customers the ability to conduct transactions, access account information, and request services via digital channels. While online banking provides convenience and efficiency, ensuring user satisfaction remains a crucial priority for banks aiming to retain and expand their customer base.

Customer satisfaction in online banking is influenced by numerous factors including service quality, system reliability, perceived security, user interface, and customer support. Understanding these determinants helps banks refine their services and align with customer expectations.

This study investigates the primary factors affecting customer satisfaction in online banking platforms and proposes actionable recommendations based on empirical results.

LITERATURE REVIEW

Sharma and Verma (2023) in the study titled "Customer Satisfaction towards Digital Banking Platforms" attempted to examine the level of satisfaction among customers using digital banking services. The study used both primary and secondary data. Primary data was collected through a structured questionnaire from 220 respondents using convenience sampling. Statistical tools such as percentage analysis and regression were applied. The study

revealed that ease of access, security features, and speed of transactions significantly influenced customer satisfaction, while technical failures reduced trust.

Ravi and Suresh (2022) conducted a study titled "Customers Perception towards Internet Banking" with the objective of examining customer perception and satisfaction. The study used primary data collected from 150 respondents through structured questionnaires. Statistical tools such as weighted average method were used. The findings indicated that customers preferred internet banking for convenience and time-saving, but were dissatisfied with frequent technical issues.

Singh and Kaur (2020) conducted a study titled "Adoption and Satisfaction towards Digital Banking" to analyze adoption behavior and satisfaction levels. The study used primary data collected from 160 respondents. Regression analysis was applied. The study concluded that perceived usefulness and perceived ease of use positively affected customer satisfaction.

Nair and Thomas (2021) in the study titled "Mobile Banking and Customer Satisfaction" attempted to analyze customer satisfaction levels towards mobile banking services. Primary data was collected from 170 respondents using convenience sampling. Correlation analysis was used. The study found that mobile app performance and security significantly influenced satisfaction levels.

IMPORTANT OF THE STUDY

Online banking has become an integral part of the modern banking system, making customer satisfaction a key factor for success. This study is important as it helps in understanding customers' perceptions and satisfaction levels towards online banking platforms. It identifies the major factors influencing satisfaction, such as ease of use, security, and service quality. The findings provide valuable insights for banks to improve their digital services and enhance customer experience. Higher customer satisfaction leads to increased trust and loyalty among users. The study also helps banking institutions remain competitive in a rapidly changing digital environment. From an academic perspective, the research adds to existing literature on digital banking and customer behavior. It serves as a reference for future research in online banking services. Overall, the study supports the development of efficient, secure, and customer-oriented online banking platforms.

SCOPE OF THE STUDY

The scope of the study is limited to understanding customer satisfaction towards online banking platforms. The study focuses on customers who actively use online banking services such as fund transfer, balance enquiry, bill payments, and mobile banking applications. It examines key factors influencing satisfaction, including ease of use, security, service quality, and reliability. The data is collected from a limited number of respondents and reflects their perceptions at a particular point in time. The study does not cover traditional banking services or international banking systems. The findings are applicable mainly to similar demographic and geographic conditions. Despite these limitations, the study provides valuable insights into customer satisfaction in digital banking services.

OBJECTIVES OF THE STUDY

The primary objectives of this study are:

1. To identify the key factors that influence customer satisfaction in online banking platforms.
2. To measure the impact of these factors on overall customer satisfaction.
3. To provide practical recommendations for banks to improve their online services.

TOOLS OF ANALYSIS

In this study, various tools of analysis are used to examine customer satisfaction towards online banking platforms. Primarily, descriptive statistics such as percentages, mean, and frequency are applied to summarize and present the data collected from respondents. Additionally, cross-tabulation is used to explore the relationship between different variables,

such as age, education, and satisfaction levels. To test the research hypotheses, chi-square tests are employed to determine whether there is a significant association between factors influencing customer satisfaction. These tools help in interpreting the data effectively and drawing meaningful conclusions from the study.

LIMITATION OF STUDY

1. 1.Sample Size Limitation – The study may have included a limited number of respondents, which might not fully represent the entire population of online banking users.
2. Geographical Limitation – The research may focus on users from a specific region or city, limiting the generalizability of the findings to other areas.
3. Response Bias – Respondents may provide socially desirable answers or may not accurately recall their experiences, affecting the reliability of the results.
4. Technological Changes – Rapid updates in online banking services and features may make the findings less applicable over time as platforms evolve.

SAMPLE DESIGN

This study adopts a quantitative research design using a structured survey method. Data was collected from online banking users to quantify satisfaction levels and determinant factors.

SAMPLE DATA COLLECTION

A total of 50 online banking users participated in the study. Participants were selected through convenience sampling and responded to an online questionnaire. Respondents' demographics included a mix of age groups, occupations, and experience levels with digital banking.

Table 1
Demographic distribution of the respondents.

S.NO	Particulars	frequency	percentage
1.	**Age:**		
	Below 20years	15	30%
	21-30 years	18	36%
	30-40years	10	20%
	40-50years	7	14%
2.	**Gender:**		
	Female	28	56%
	Male	22	44%
3.	**Educational qualification:**		
	Postgraduate	18	36%
	Undergraduate	20	40%
	Higher secondary	8	16%
	Others	4	8%
4.	**Occupation:**		
	Student	12	24%
	Salaried employee	18	36%
	Business	10	20%
	Others	10	20%
5.	**Monthly income:**		
	Below 20,000	14	28%
	20,001-40,000	16	32%
	40,001-60,000	12	24%
	Above 60,000	8	16%

SOURCE: Primary data

It is a clear from above table that majority of the respondents (36%) are in the age group of 21 - 31years (58%) of the respondents are female and (40%) are undergraduate. Majority of (36%) respondent is salaried employee and (32%) of respondent are monthly income 20001-40000.

Table 2
Age of the Respondent

Valid	Frequency	Percent	Valid percent
Below 25	18	36	36.00
26 - 35	17	34	34.00
36 - 45	10	20	20.00
Above 45	5	10	5.00
Total	50	100	100.0

Overall Satisfaction of the Respondents

Table 3
Age and overall satisfaction level of the Respondents-Chi Square test

Particular	Frequency	Percent	Valid percent
Highly satisfied	9	18.0	18.0
Satisfied	11	22.0	22.0
Neutral	6	12.0	12.0
Dissatisfied	12	24.0	24.0
Highly dissatisfied	12	24.0	24.0
Total	50	100.0	100.0

Null Hypothesis (H_0):
H_0: There is no significant relationship between age and overall satisfaction level of the respondents towards online banking platforms.

Alternative Hypothesis (H_1):
H_1: There is a significant relationship between age and overall satisfaction level of the respondents towards online banking platforms.

Chi square Tests			
	Value	df	Asymp. sig (2 sides)
Pearson chi square	2.840	9	0.971

While applying the chi-square test at 5% level of significance, it is observed that there exists a significant relationship between demographic factors and customer satisfaction towards online banking platforms. Hence, the alternative hypothesis is accepted, which reveals that the level of customer satisfaction varies among different demographic groups using online banking services.

CONCLUSION

The present study concludes that online banking platforms have become an integral part of modern banking, offering customers convenience, accessibility, and efficiency in financial transactions. The findings indicate that most customers are satisfied with the services provided through online banking platforms, particularly in terms of ease of use, time savings, security features, and service availability. Although minor challenges such as technical issues and security concerns were identified, they do not significantly affect the overall satisfaction level of customers. The study also reveals that customer satisfaction is influenced by service quality and system reliability rather than demographic factors. Therefore, banks should continue to enhance their digital infrastructure, strengthen security measures, and provide customer support to improve user experience further. Overall, the study highlights the importance of

continuous innovation and customer-centric strategies to sustain and enhance customer satisfaction in online banking platforms

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A REVOLUTIONARY MOVEMENT OF THE E-COMMERCE IN THE MARKET IN INDIA

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ABSTRACT

E-commerce or e-commerce enables consumers to electronically exchange items and ventures with no time or distance limit. More and more customers have moved from standard commerce to e-commerce because it is often faster and cheaper. Moreover, e-commerce offers more convenience and flexibility for the choice of altering items and services. E-commerce is a business process by means of computer networks. A person sitting in his seat before a computer can access all Internet facilities to purchase or sell items.Unlike conventional commerce that is physically carried out with a person's efforts to fetch items, e-commerce enables the man to reduce physical work and save time. E-commerce, which began in the early 1990s, has taken a noteworthy step forward in the realm of computers, yet security has been a delay the development of e-commerce. Security is the challenge that e-commerce faces today, and a huge amount of progress has been made in the area of security.

The principle advantage of e-commerce over conventional commerce is that the user can browse online shops, compare prices and order items at home on his PC. To increase the use of electronic commerce in developing countries, business-to-business e-commerce is being implemented to improve the access of developing country firms to worldwide markets. For a developing country, progress in e-commerce is essential. The research strategy demonstrates the importance of e-commerce in developing countries for commercial applications.

KEYWORDS: E-commerce, market, internet, government

INTRODUCTION

E-commerce or e-commerce is a term for a business or business exchange including the transfer of information over the Internet. It covers a wide range of business types, from consumer retail sites to music exchange sites, closeout sites, and trade in items and enterprises between companies. It is currently one of the most critical aspects of the Internet to emerge.

E-commerce enables consumers to electronically exchange merchandise and ventures with no time or distance limit. E-commerce has expanded rapidly over the latest five years and is expected to continue along these same lines, and even accelerate. Soon, the boundaries between "conventional" and "electronic" commerce will become increasingly blurred as more and more companies move sections of their operations over the Internet. conventional methods. When implemented properly, e-commerce is often faster, cheaper and more convenient than standard methods of bartering merchandise and enterprises.

Electronic exchanges have been around for quite a while as electronic data interchange or EDI. EDI requires that each provider and customer establish a dedicated data connect

(between them), with e-commerce giving businesses a down to earth method of designing multiple specially appointed connections. Electronic commerce has moreover led to the development of electronic markets where suppliers and potential customers are united to direct generally beneficial exchanges.

The best approach to creating a successful online store can be troublesome in the event that you haven't the faintest idea about the principles of e-commerce and what e-commerce is supposed to achieve for your online business. Finding and understanding the guidelines needed to properly implement an e-business plan are essential for success in structure online stores.

CATEGORIES OF E-COMMERCE

There are four principle categories of e-commerce: B2B, B2C, B2B and B2C.

- B2B: concerns companies working with each other. An example is manufacturers selling to merchants and wholesalers selling to retailers.
- B2C: bunches companies that sell to the general open through shopping basket software without the need for a human interface. An example of this would be Amazon.
- C2B: Consumers distribute a project with a defined budget online and companies offer for the project. The consumer reviews the offers and selects the association. Elance is an example.
- C2C: takes place in online classifieds, talks or markets where people can purchase and sell their items. Craigslist, eBay and Etsy are examples.

E-COMMERCE: A REVOLUTION WITH POWER

Information and correspondence technologies (ICT) and e-commerce have begun to change the corporate structure, yet the guide of the worldwide economy has likewise been affected. something be said about the power this gives to the sectors and countries that run it? Any real change in economic power between countries typically involves a new item or process for exploiting new technologies. Japanese industry took off during the 1960s, eventually leading the pack in the United States during the 1980s in the fields of computerization, semiconductors, electronics and computers. It did all things considered by benefiting from the lean system, harnessing Japanese management know-how and putting technology at the service of cost control. During the 1990s, the United States returned to the top and, despite the recovery or strong development of several European countries, is currently in the process of expanding its lead in different sectors.

The performance of the United States has been impressive, taking numerous competitors zoned out. Indeed, strategy makers around the world have been puzzled about this. After all, are we not living in a worldwide marketplace where commerce, investment and the movement of people and technology unite countries? In this environment, economic performance should converge rather than diverge.

Despite the way that there seems to be no single explanation for this trend, a great numerous people agreed that a fundamentally new force was crushing ceaselessly, and that ICTs were at its heart. As opposed to the adage that computers appear everywhere else than inmeasurements (see the article by Ignazio Visco), ICT figures speak for themselves. As indicated by economists from the US Federal Reserve, the commitment of ICT to US development of more than 20% has been greater than 20% (1.1 point on a development rate of 4.9%).[6] For the other two Anglo-Saxon countries of the G7, the United Kingdom and Canada, the circumstance was comparative. Also, despite every one of the bits of tattle that technology would deprive workers of employments, these dynamic economies have reduced their unemployment rate to one of the lowest in the OECD area. Conversely, starting in the no so distant past, Japan and the three fundamental continental European economies - France, Germany and Italy - had recorded rather modest development in new ICT investment and overall yield.

This is the direct commitment of ICT equipment and software generation to development; however, shouldn't something be said about its absolute effect on the depths of the US economy? Efficiency figures provide a clue. The whole deal trend in gainfulness was 1.4% development per year between 1973 and 1995. This figure more than doubled to 2.9% after 1995. The arranging of this trend tends to coincide with the emergence of electronic commerce.

In previous economic cycles, productivity tended to demonstrate strong development in the early years of recovery, however, to fade as recovery grabbed hold. This time, strides.

HISTORY

Shopping is one of the most prevalent activities on the web. It has a great deal of appeal - you can do your shopping anytime and in night robe. Literally, anyone can have their pages worked to demonstrate their specific items and services.

The verifiable setting of electronic commerce goes back to the invention of the very old idea of "sell and purchase", namely electricity, cables, computers, modems and the Internet. E-commerce became possible in 1991, when the Internet was opened for commercial use. Since then, a large numberof companies have made their homes on websites. At first, the term "electronic commerce" referred to the process of executing electronic business exchanges, using advanced technologies, for example, electronic data interchange (EDI) and electronic backings transfer (EDI). EFT), which allowed users to exchange business information and complete electronic exchanges. exchanges. The chance to use these technologies began in the late 1970s and allowed companies and relationship to send business documents electronically.

Despite the way that the Internet began to get fame among the general open in 1994, it took around four years to develop the security conventions (for example, HTTP) and DSL, which allowed for fast access and a persistent connection to the Internet. In 2000, many commercial companies in the United States and Western Europe represented their services on the World Wide Web. At that time, the meaning of the word e-commerce was changed. People have started to define the term "e-commerce" as the process of acquiring items and enterprises available over the Internet through secure connections and electronic payment services. In spite of the way that the collapse of the Internet bubble in 2000 led to unfortunate results and the disappearance of numerous e-commerce companies, standard retailers have recognized the benefits of e-commerce and have begun to add such features to their websites. (for example, after online groceries).

Webvan has fallen into disrepair, two supermarket chains, Albertsons and Safeway, have started using e- commerce to enable their customers to purchase nourishment online). Before the end of 2001, the most widespread model of e-commerce, the Business-to-Business (B2B) model, totalled about $ 700 billion.

As indicated by every available datum, online sales continued to develop over the next few years and, around the end of 2007, accounted for 3.4% of complete sales. E-commerce has numerous advantages over conventional stores and mail-order records. Consumers can easily search a huge database of items and services. They can see the real prices, build an order over several days and send it as a "rundown of things to get" believing someone will pay for the selected items. Customers can compare prices with a tick of the mouse and purchase the selected item at the best price.

Online sellers, therefore, likewise benefit from specific advantages. The Web and its search engines make it easy for customers to discover expensive advertising efforts. Even little online stores can reach worldwide markets. Web technology likewise tracks customer preferences and offers personalized marketing. The recorded background of e-commerce is unthinkable without Amazon and eBay, which were among the essential Internet companies to authorize electronic exchanges. Because of their founders, we currently have an attractive online business sector and enjoy the advantages of obtaining and selling the Internet. There are

currently five of the world's largest t and most mainstream Internet retailers: Amazon, Dell, Staples, Office Depot and Hewlett Packard. As indicated by bits of knowledge, the most well-known categories of items sold on the Web are music, books, computers, office supplies and other consumer electronics items.

INDIAN ECOMMERCE INDUSTRY

E-commerce has transformed the manner wherein business is done in India. India's e-commerce market is expected to develop from US $ 38.5 billion of every 2017 to US $ 200 billion by 2026. This development is largely due to the developing penetration of the Internet and smartphones. The advanced change underway in the country is expected to bring the full-scale number of Internet users in India to 829 million in December 2018, from 604.2 million to 829 million by 2021. The Internet economy of India is expected to double from 125 billion USD in April 2017 to 250 billion USD by 2020, predominantly supported by e-commerce. E-commerce revenues in India are expected to increase from US $ 39 billion of every 2017 to US $ 120 billion out of 2020, a yearly development of 51 percent, the highest on the planet.

THE SIZE OF THE MARKET

Driven by the developing penetration of smartphones, the dispatch of 4G networks and increasing consumer wealth, India's e-commerce market is expected to reach $ 200 billion by 2026, up from $ 38.5 billion out of 2017. Online retail in India is expected to become 31% from US $ 32.70 billion of every 2018, led by Flipkart, Amazon India and Paytm Mall. In 2018, electronic items are currently the largest supporter of online retail sales in India with a 48% market share, followed closely by apparel with 29%.

INVESTMENTS/DEVELOPMENTS

Some of the huge developments in the Indian e-commerce sector are:

- Flipkart, after being acquired by Walmart for $ 16 billion, is expected to open more offline retail stores in India to promote private labels in segments, for example, style and electronics. In September 2018, Flipkart acquired Upstream Commerce, a beginning up based in Israel, which will help it set prices and position its items effectively.
- Paytm launched its bank - Paytm Payment Bank. Paytm Bank is the fundamental Indian keep money with zero online exchange fees, no base balance requirement and a free virtual debit card
- As of June 2018, Google likewise plans to enter the e-commerce sector by November 2018. India is expected to be its largest market.
- Reliance Retail will dispatch online retail this year. He has already launched his nourishment and grocery application for beta testing among his employees.
- In India, the e-commerce industry reported 21 private equity and venture capital deals worth $ 2.1 billion out of 2017 and 40 exchanges worth $ 1,129 million in the central portion of 2018.
- Google and Tata Trust collaborated on the "Internet Saathi" project to improve Internet penetration for nation women in India.

GOVERNMENT INITIATIVES

Since 2014, the Indian government has announced different initiatives, including Digital India, Make in India, India Start-up, Skill India and Innovation Fund. The snappy and effective implementation of such projects will likely help the development of e-commerce in the country. The fundamental initiatives taken by the Government to promote the e-commerce sector in India are:

- In order to increase the interest of foreign players in the field of e-commerce, the Indian Government has exceeded the purpose of confinement of foreign direct investment (FDI) in the e-commerce market model by up to 100% (in B2B models).

- The Indian government's heavy investment in deploying the 5G fibre optic network will help bolster e- commerce in India.
- In the 2018-19 budget of the Union, the government allocated Rs 8,000 billion (US $ 1.24 billion) to the BharatNet project to provide fast services to 150,000 grams of panchayats.
- In August 2018, the government is wearing down the second version of the e-commerce approach, combining commitments from different industry players.

ACHIEVEMENTS

Coming up next are the government's accomplishments over the previous four years:

- As a feature of the Digital India movement, the government has launched different initiatives, for example, Udaan, Umang, India Start-up India, etc.
- As a feature of the "Saathi Internet" project, the government has impacted more than 16 million women in India and affected 166,000 villages.
- Udaan, a business-to-business e-commerce stage that connects little and medium-sized manufacturers and wholesalers with online retailers and furthermore provides collaborations, payment and technology support.
- According to the UN Electronic Governance Index, India has gained 11 positions, from 2018 out of 2014 to 107 of every 2016.
- The government has launched Bharat Interface for Money (BHIM), a simple mobile advanced payment stage.

STREET AHEAD

The e-commerce industry has directly affected smaller scale, little and medium enterprises (MSMEs) in India by giving financing, technology and preparing, and furthermore has a favourable falling effect on others. sectors. The e-commerce industry in India has seen an upward development trajectory and is expected to overtake the United States to become the world's second largest e-commerce market by 2034. Technological advancements have spurred developments, for example, computerized payments, hyper-nearby collaborations and examination driven customers Engagement and advanced advertising is likely to help industry development. The development of the e-commerce sector will likewise bolster employment, increase export revenues, increase charge collection by former reviewers, and provide better whole deal items and services to customers.

THE DRAFT E-COMMERCE POLICY, 2018

The long-awaited e-commerce approach has been delayed for three years, however the published project has caused a blend among investors, sellers and retailers who, because, have come together, united, to against the project. A framework is necessary for systematization and to ensure that the requirements for computerized exchanges in India, fusing a reasonable price in the country's advanced market, are met.

The 2018 e-commerce approach project appears to be a positive development in the sector as a result of suggestions received from industry players and different industry affiliations. This indicates the government needs to counsel with other players in the sector to ensure that there is a methodology that meets the needs of the market and is dynamic enough to conform to the Indian economic dynamic. That being stated, this draft strategy has its own advantages and disadvantages.

The draft strategy indicates that noteworthy breaking points have negatively affected offline sales and that unregulated cut-off points must cease. It likewise indicates that a direct or indirect influence on the price or sale of an online retailer's items and services may not be permitted for gathering companies that invest in the online retailer. This movement can lead to the complete imperative of e-merchants to give noteworthy breaking points. Business decisions should not be micromanaged in this manner.

E COMMERCE IN INDIA

E-commerce nowadays has become one of the most essential pieces of everyday life. Access to e-commerce stages, especially in urban areas, isn't just a chance, however a necessity for most by far. In 2014, nearly 75% (2.1 billion) of the world's Internet users (2.8 billion) lived in the principle 20 countries. The remaining 25% ($ 0.7 billion) is distributed among the remaining 178 countries, each representing less than 1% of the absolute number of users. China, the country with the most users (642 million out of 2014), represents nearly 22% of the aggregate and has more users than the going with three countries, United States, India and Japan combined.

Of course, India is in a unique position for the development and development of the e-commerce sector. The most noteworthy sector for which e-commerce is an open entryway is retail, as it moves from square establishments to mortar stores in virtual stores that could operate at a modest quantity of the expense. Casual communities assume a no seaworthy role in stirring online consumers and in their commitment to interact with brands. While Indians mainly use the Internet for their correspondences, generally as e-mail, online networking is likewise a noteworthy driver of Internet users in India. The report of the Internet and Mobile Association of India (IMAI) estimates to 243 million the number of Internet users in the country by June 2014, outperforming the United States to become the second Internet base of the world after the China. The IMAI report can be corroborated by data from other sources, for example, Facebook, as indicated by which India had 82 million active users per month as of June 30, 2013, the second largest geographic region for Facebook after the United States and Canada.

The Indian government, for giving broadband connectivity to neighbourhood and village government agencies, has approved projects. The government should permit broadband Internet connectivity in nation areas to provide services, for example, e-commerce, e-entertainment, e-learning, e-health, e-governance to people and businesses. Electronic commerce and its business models:

E-commerce is a type of busines s model, or segments of a larger business model, that enables a business or individual to lead business on an electronic network, regularly the Internet. However, there is no normal definition of the term e-commerce; it is generally used in the sense of designating a method of leading business by electronic means rather than by regular physical means. Electronic commerce has challenged the standard structure of trade with consumers, featuring different business models that have empowered consumers.

The most widely recognized business models facilitated by e-commerce are:

a) B2B: Business to Business (B2B) describes business exchanges between different companies, enabling different companies to establish new relationships with other companies. For example, between the manufacturer and a wholesaler or between a wholesaler and a retailer.

b) B2C: B2C describes the activities of companies serving items or potentially services to end consumers. Direct exchanges have consistently existed between businesses and consumers. However, with the rise of e-commerce, exchanges of this type are gaining ground.

c) C2C: Consumer-to-consumer (C2C) refers to exchanges facilitated electronically between consumers through an outsider. Usually, consumers have been dealing with other consumers, however very few of these activities were commercial.

d) C2B: Business Consumer (C2B) involves consumers who provide merchandise/services to businesses and create value for the business.

e) B2B2C: This is an alternative to the B2C model and in this type of model, there is an extra intermediate activity to facilitate the principle commercial exchange with the end consumer. For example, Flipkart, which is one of the successful e-commerce

entryways, offers consumers the chance to purchase a wide range of items, for ex ample, books, music CDs, and anything is possible from that point. Therefore, the presentation of exchanges by means of e-commerce can seem simple and economical. There are a variety of legal variables that an e-commerce association ought to seriously consider and keep as an essential concern before beginning and in the course of directing business.

CONCLUSION

E-commerce is still new, regardless of its development. Driving restrictions at this stage would be restrictive and prevent the sector from realizing its potential. To facilitate the undertaking and ensure efficiency, regulatory mechanisms are needed. Having differential democratic rights for foreign investors and recognizing the concept of fundamental ownership, which has consistently demonstrated the tendency to acquire collusive benefits, could be a step towards guaranteeing such regulation, similarly as the consolidation of a clause. non-competition in investor contracts.

E-commerce refers to a wide range of commercial activity on the Internet. This can include e-commerce, business-to-business (B2B), intranets and extranets, online advertising, and essentially the online presence of any structure used for a correspondence. Electronic commerce has several advantages and disadvantages, as indicated in these documents.E-commerce applications launched in the early 1970s still need to be developed in terms of security and efficiency. For developing countries like India, progress in e-commerce is a challenge for competition with developed countries

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ECONOMIC IMPACT OF FARM TOURISM IN RURAL AREAS

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ABSTRACT

Farm tourism stands at the intersection of agricultural and tourism, offering a unique experience for tourists to experience rural life. The area of the tourism offer actively engaged in tourism activities, explore the countryside, taste the local recipes, buy genuine farm products. In Kerala farm tourism not only as a source of leisure but also as a significant impact on rural areas. The paper covers the economic impact of farm tourism in rural sustainable development. It also experience financial support of tourism in farms, potentiality for growth, effect on community. There are lot of tourists like to participate the village life, there the farm tourism a way for the tourists to satisfy their requirements. Implementing the tourism in villages, protection of village culture, keeping bio diversity, efficient use of resources are the positive aspects of farm tourism.

KEY WORDS: Farm Tourism, Economic impact, opportunities, Tourism, Tourism Development

INTRODUCTION

Farm tourism is a developing tourism concept in Kerala, the idea of nature friendly tourism programmes are conducted with the effort of faming community. The concept of organising tourism practice in farms already implemented and profitably runed by number of farm entrepreneurs. From the part of tourism department recently started to register the farm tourism centres and provide training programmes. Farm tourism is a nature protected tourism practice which conserve the natural resources and ensure the well-being of the local people. Recently farm tourism is one of the fastest growing tourism sector in the tourism map of Kerala. The traditional conservation of natural resources, bio diversity attitude of farmers, homely atmosphere of tourism activities are attract both domestic as well as international tourist to experience the divine segment of the rural areas. The farm tourism offered a considerable potential for integrating the farm land with rational tourism operations. In the first half of the last year 2023, 1,06,83,643 visitors from our country participate tourism practices.

The statistics revels that an increase of 17.87 lakh domestic tourists in the first half of the year 2023 than compared to the last year. The statistics of foreign tourists arrival up to the first half of the last year 2,87,730 as compared to the last year 1,05,960 the corresponding

period of last year an increase of 171.55% growth. The state of Kerala earn a significant increase in the income generated from tourism sector. Tourism arrangements and policies of the state of Kerala attract lot of domestic as well as international tourist to the state.

Rural areas

Farm tourism is a growing trend that combine scope of agriculture with tourism , which offering a sweet experience for visitors. Farm entrepreneurs are diversify their farming operations for earning additional income from farm land. Tourists enjoy the activities of farm like farm tours, workshops, restaurants and experiencing various activities, contribute to the local economy through spending on accommodation food and farming products. The farm owners and local people get employment opportunities and support to the local small business. Moreover farm tourism enhance overall infrastructure better accommodations, attractive restaurants to the tourists. The economic benefit from farm tourism not only beneficial for the tourism entrepreneur but the local community.

The growing number of farm tourism preserves local traditions and culture. The farmers get a chance to protect the bio diversity and protection of environment by keeping agricultural land. The practice of tourism in farm land generate a platform to sustainable agricultural practices.

Area of study

Economic impact of farm tourism covers two nearly districts is norther Kerala. Geographically Kozhikode district and Wayanad districts as a part of Western Ghats. Farm tourism an advisable tourism sector to use greenish villages in these districts. Travel through the hilly areas of the district provide memorable moments for the visitors. The area covers green lands, seashore, midlands, all of the area gives visitors sweet memories. Wayanad a greenish tourist destination for all categories of tourists to satisfy their different requirements. The area fully covered with natural beauty landscapes, paddy field, and wildlife sanctuaries. Wayanad district comes under south top of western Ghats and beginning land of many rivers. Tourists get a chance to enjoy cold and mysterious climate in almost seasons. The attractive weather, deep valleys, rain forests offer a wide scope for trekking opportunities, adventure tourism, Agri tourism and wildlife tourism.

REVIEW OF LITERATURE

UNWTO defined "Tourism comprises the activities of persons travelling to and staying in place of outside their usual environment for not more than one consecutive year for leisure, business and other purpose" WTO march 30 2010

According to the WTO Tourism have occupies, a vital role for the growth and development of the economies of most of the countries. Tourism strongly contribute the revenue sector of an economy, development of infrastructure of a country, creation of jobs, cultural exchange between foreigners and citizens. March 26,2019

The overall development of rural areas necessitate not only the participates agricultural sector but requires the involvement of non agrarian sector. The complexity of poverty level in rural areas farmers entertain alternate source of income from farm land. The multifunctionality of agriculture paved the way for development of tourism and environment protection. Here agro tourism occupies a greater importance for the comprehensive development of rural communities. The aim of agro tourism philosophy is to increase farmers income and better life for rural communities. -- Dr.Sharmila Bose(2019)

Researchers argue that developing the process of farm tourism utmost care necessary for the protection of environment because farmers those who raise all forms of resources from its environment. A sustainable development pattern necessary for the health of environment for long term practice of tourism. In order to protect our planet , farm tourism ensure more hope to the rural community. The idea of circular economy in farm tourism create and adopt a sustainable development of farm tourism activities. Ie , sustainable use of resources not only

for the present people but to keep and protect for the next generations. Circular economy in farm tourism suggest a model for effective use of natural resources to accomplish sustainable development.-- Ramona hanza(2018)

The growth of sustainable food culture and green farm tourism in Devon in UK point out the scope for territorial resources mobilisation, village communities , socio economic growth, socio environmental and socio cultural sustainability. Farming companies find and practice alternate farming activities with economic, socio cultural and socio environmental role, which is beneficial for farm houses and which directly or indirectly beneficial for rural community and society. --Rural Development and Farm tourism in Devon (UK) Cardiff (Sept, 2010)

The success factors of farm tourism involve location advantages, customers, satisfaction, resources management, promotion and publicity. Government support have occupies a significant influence. The availability of timely, financial and administrative services of government agencies promotes farm entrepreneurship. --Krishna D.K , NV Kumbhare(2020)

OBJECTIVE OF THE STUDY

- To study the economic impact of farm tourism on sustainable development.
- To understand various benefits of integrating agriculture with tourism operations.
- To develop findings and suggestions for the tourism operations for future planning and decision making.

NEED FOR STUDY

Farm tourism significantly influence the economic development by providing additional income for farmers. A study on farm tourism and economic development required to be understand the areas of contribution of additional income for farmers, contribution to the local GDP, job creation, infrastructural development. The area of study is beneficial for farmers, local government institutions, communities to create a positive impact of farm tourism for sustainable development.

RESEARCH METHODOLOGY

Primary data and secondary data are used for research study. Primary data is collected through questionnaire and secondary data have been collected from Journals and Websites. The researcher used sample survey because of the wide Population. So, the research purpose collect response of 40 respondents. The researcher has used Judgement sampling for the study.

LIMITATIONS

- The area of study is limited to Wayanad and Kozhikode district
- Primary data collect from 40 respondents only using random sample method for the study.
- From the study researcher try to find out economic aspects of farm tourism in rural areas. Farm tourism is a form of entrepreneurship formed by farming community to earn additional income for farmers. Formation of tourism operations not only influence the economic growth of farms but it acts as a way for many related areas. The development of farms generate more employment opportunities, more money circulations, basic infrastructural development of the rural areas. All of these development enhance the sustainable development of the rural areas in the Districts.

Table 1
Economic Impact of Farm Tourism in Rural Areas

S. No.	List of questions	Strongly Agree		Agree		Neutral		Disagree	
		sum	%	Sum	%	sum	%	Sum	%

1	Farm tourism has create job opportunities for family members	34	85	4	10	2	5	0	0
2	Farm tourism improve basic facilities of infrastructure in rural area	12	30	12	30	16	25	0	5
3	Sources of generating additional income to Farmers	26	65	10	25	4	10	0	0
4	It result into better price for art and craft products	2	5	12	30	16	40	10	25
5	It enhance related tourism business (agricultural product sales, roadside stalls, restaurants, accommodation).	0	0	0	0	12	30	28	70
6	Enhance livelihood for local people	0	0	0	0	8	20	32	80
7	Some local people are earning money by leasingland and property for tourism purpose	0	0	0	0	4	10	36	90

Table one shows that 85% of the respondents think that farm tourism generate job for all family members, the great percentage show that farm tourism is a family oriented tourism sector. Amoung10% of themare correlatively agree, farm tourism is a way for generating job for all the family members, 5% of them not bother it and they have no faith in creation of job in farm sector. While observing the table 30% of the respondents strongly think farm tourism positively influence the infrastructure and the rest of the 30% moderately beliefs influence of farm tourism and infrastructural development. The rest of the 25% of them have no opinion about it. The table shows 65% of the respondents think, farm tourism a dependable source of generating additional income for farmers. Here 25% of the respondents moderately supporting the concept. The respondents of 40% of them have no opinion about, art and craft is a source of revenue for the farmers. The respondents of 25% of them strongly disagree about the income generation from art and craft. The study area involves farm tourism support other forms of tourism activities like restaurants, roadside stalls etc, but 70% of the respondents do not agree with this statements. The other respondents have no opinion about it. The table shows that 80% of respondents beliefs farm tourism is not a way for the livelihood of local people. Here 20% them have no response about the statements. The majority of 90% of respondents do not agree with the local peoples earnings from leasing land and property

Table 2
Economic Impact of Farm Tourism in Rural Areas

S. No.	List of questions	Strongly agree		Agree		Neutral		Disagree	
		sum	%	Sum	%	sum	%	Sum	%

8	Grow and development of farm tourism cause high price of land and property	24	60	16	40	0	0	0	0
9	The increased flow of tourists cause inflation of daily use commodities of local people	26	65	14	35	0	0	0	0
10	Locals rarely get opportunity to work at managerial positions	16	40%	6	15%	14	35%	4	10%
11	Locals are working as guides/cooks/ watch man,ie as semi-skilled workers are not beneficial economically through farm tourism.	8	20%	16	40%	16	40%	0	0
12	Lack of adequate fund from Tourism Department	15	40%	14	35%	10	25%	0	0

Table two shows 60% of the respondents strongly says, growth and development of farm tourism leads increase the price of the agricultural land, and the other 40% of the farmers think that the price of the land and affect the tourism development. The study indicate that cent percentage of the farmers think that influence and increased number of tourists is a cause for the increased cost of living of rural people. The majority of 65% of them strongly agree with it. There is no other opinion from respondents. The table shows majority of 40% of the respondents strongly agree about local people rarely get managerial positions, but 10% of them thinks the villagers also get managerial jobs along with other jobs. Usually the locals are working as in the position of semi skilled jobs, but any of the respondents agree with this argument. The 60% of the respondents agree with it.The study shows that 40% 0f the respondents strongly agree that tourism department not provide adequate financial support to the farm tourism community.

Benefits of Farm Tourism

Farmers have different motivations to extend their farm to farm tourism centre involves some farmers have taken part-time work and others are generally older. In the case of part-time farmers entry into farm tourism are principally income related. The retirement farmers are motivated to gain social opportunities and less labour intensive way to generate income. The younger farmers are more interested in development of the village for their children. The older farmers retirement income from farm tourism (Claudia Ollenburg, Ralf Christopher Buckley 2007)

The benefit of farm tourism depends on the volume of tourism activities associated to the local economy. Tourists from different locations interested in local products and attractions. Agritourists like to spend at small business and many small hotels and restaurants for buying various products and complementary services. These practice create additional jobs and income to the local economy. (Diana Marin 2015)

The economic benefit of farm tourism in Missouri farm operators do not receive direct sales from their activity, but through the continued activities in their farms. Researches found that implementation of tourism on farms have a positive impact on farm profits. The farms

physical characters are influence the success of farm tourism business in certain extend. The physical farm resources should be neither merit or demerit for the development and success of the agrotourism enterprises. Researchers found that farms within a remoteness or closeness occupies similar opportunities for the growth of tourism operations (Carla Barbieri Christine Tew 2010)

Comparing the share of agrotourism revenue and gross farm income shows that agritourism income are more important than gross farm income. The share of family farm income is smaller than the income from the tourism related agricultural operations. In certain countries farm tourism revenue slightly increase family farm income by way of value added products and direct sale of farm products to the farm tourists. In case of larger farms family farm income is higher and higher farm tourism income can further increase income generation capacity of the farms.(Zsuzsanna Bacsi, Peter Szalteleki 2022)

The diversification of agricultural farms to agritourism provide significant economic benefits by diversifying income streams for farm entrepreneurs and the rural economic background. By opening farmers farm to tourists, farmers can supplement their traditional agricultural revenue with earnings from the activities such as farm tours, farm stays farm recreational activities, and the sale of farm products to the tourists. Through the additional revenue can help the farmers stabilize farm incomes, reduce the financial risks associated with market fluctuations, climate changes, crop failure, and improve the overall performance of the farm operations. In addition to the direct income for farmers, farm tourism stimulate the local economies by increasing the volume of consumption of local products. Tourists visit farm regions spend money on village accommodations, restaurants, retail shops which create economic benefits for both the farm entrepreneurs and local economy. By way of increased economic activities, more jobs are generated in the areas of hospitality, food service small shops. It's a great hope for reducing the unemployment issues in villages.

FINDINGS AND CONCLUSION

- Farm tourism provide a unique opportunity for farmers for the economic development.
- The connection of tourism in farm land encourage more employment opportunities not only the family members but the natives.
- Farm tourism is a form of entrepreneurship that cause the infrastructure development of the village areas.
- Tourism in farm land is a way for generating additional income for farmers
- The farmers get a chance to sell their agricultural products at higher price and more demand.
- The success of farm tourism automatically increase the price of farm land.

SUGGESTIONS

- Diversification of farming activities like farm stays, recreational activities, workshops, participation of farming activities generate more opportunities and economic development of farms.
- The attachment of agricultural nurseries, food court, restorents, accommodations package programmes are ways for economic benefit for the farms.
- Implementation of effective marketing strategies necessary for farm tourism development and sustainability of the farmers.
- The investment for the improvement of accommodation facilities, food courts, huts, gardens enhance good appeal for the tourists.
- Involving the local community in farm tourism crate a sense of ownership, protection and cultural exchange.
- The farm tourism is purely a sustainable form of tourism attract more eco conscious travellers.

- To provide employment opportunities to local people.
- Develop a good communication system to market the local tourism spots.
- To maintain hotel, restaurant, rest rooms, resorts with clean and hygienic.
- It required to develop good technology background in tourism sector

CONCLUSION

Tourism a fastest growing industry, it influences the economic, social and cultural sectors of the state. Tourism activities performed in connection with tour operators, transport service, accommodation providers, tourism departments, agencies and local people. All these supporting factors grow among tourism industry. Farm tourism beneficial for farming communities in economic sustainability, long term growth, creation of reputation in the community. Farm tourism is a powerful tool for farmers economic development through the preservation agricultural traditions. Through initiatives that projecting farming activities rural life, farming activities, local culture farm tourism attract eco loving tourists, generate income for farm entrepreneurs and the local community.

Planning for the future, focusing on sustainable development is crucial. Through implementing organic farming, eco friendly attitude ensure the protection of the environment. In conclusion farm tourism into economic development policies keep promise for the farming communities. While prioritizing sustainable development by keeping traditional farming activities pave a way for the prosperous future for both agriculture and tourism.

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RETAIL AND E-COMMERCE REVOLUTIORIZING CONSUMER MARKET

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ABSTRACT

E-commerce has also expanded global reach for businesses, enabling even small retailers to access wider markets. However, this transformation brings challenges, including intense competition, cybersecurity concerns, and changing consumer expectations. This study examines the impact of retail and e-commerce on consumer behaviour, market structure, and business strategies, highlighting how innovation continues to reshape the modern consumer marketplace. interact with brands, and make purchasing decisions. Traditional retail has evolved alongside digital platforms, offering consumers greater convenience, wider product choices, competitive pricing, and personalized experiences. Advancements in technology such as mobile commerce, digital payments, data analytics, and artificial intelligence have further strengthened the integration of online and offline retail channels. The findings of the study reveal that consumers increasingly prefer e-commerce due to factors such as convenience, time-saving, product variety, and attractive pricing. However, traditional retail continues to play a vital role by offering physical inspection of products, immediate delivery, and personalized customer service. The study highlights that both retail and e-commerce complement each other rather than compete exclusively. The integration of digital technologies into traditional retail formats is emerging as a key strategy for sustainable growth. The study concludes that retail and e-commerce together are revolutionizing the consumer market by enhancing customer experience, expanding market reach, and reshaping purchasing behaviour. The findings provide valuable insights for retailers, marketers, and policymakers in framing effective strategies for the future consumer market.

KEYWORDS: Retail Industry, E-Commerce, Consumer Market, Digital Transformation, Online Shopping, Consumer Behaviour, Omnichannel Retailing

INTRODUCTION

This revolution in retail and e-commerce has not only reshaped consumer behaviour but also influenced business models, supply chains, and marketing strategies. Understanding this transformation is essential to analysing how modern consumer market's function and how future innovations will further redefine retail experiences. The retail industry has undergone a

significant transformation with the rapid rise of e-commerce, fundamentally changing the way consumers purchase goods and services. Traditional brick-and-mortar stores, once the primary mode of shopping, are now complemented by online platforms that offer convenience, accessibility, and a wide range of choices. This shift has been driven by advancements in technology, increased internet penetration, and the widespread use of smartphones and digital payment systems. E-commerce has enabled consumers to shop anytime and from anywhere, breaking geographical barriers and creating a more competitive marketplace. The consumer market has undergone a profound transformation over the past few decades due to rapid developments in retailing and e-commerce. Traditional retail formats, which once dominated the marketplace through physical stores and face-to-face transactions, are now being reshaped by digital technologies and online platforms. The emergence of e-commerce has revolutionized the way consumers search for information, evaluate alternatives, and purchase products and services. This shift has significantly altered consumer expectations, market structures, and competitive strategies within the retail sector. Retailing plays a vital role in the economy by connecting producers and consumers and ensuring the availability of goods and services at the right place and time. With the advancement of information technology, retailing has moved beyond physical boundaries and embraced digital channels. E-commerce, supported by the widespread use of the internet, smartphones, digital payment systems, and logistics networks, has enabled consumers to shop anytime and anywhere. Features such as online catalogues, price comparisons, customer reviews, and doorstep delivery have enhanced convenience and transparency, making e-commerce an attractive option for modern consumers. The growth of e-commerce has also compelled traditional retailers to rethink their business models. Many brick-and-mortar stores have adopted innovative practices such as online ordering, digital payments, loyalty programs, and omni-channel retailing to remain competitive. As a result, the line between traditional retail and e-commerce is increasingly blurred. Consumers today often use both online and offline platforms depending on product type, urgency, and personal preferences. This integration has created a dynamic and competitive consumer market. Changing consumer lifestyles, increasing income levels, urbanization, and exposure to global trends have further accelerated the transformation of the consumer market. Customers are now more informed, price-conscious, and quality-oriented than ever before. They expect personalized services, fast delivery, easy return policies, and seamless shopping experiences. Retailers and e-commerce companies are responding by leveraging data analytics, artificial intelligence, and customer relationship management tools to understand consumer behaviour and enhance satisfaction. In this context, the study of retail and e-commerce is essential to understand their impact on consumer markets and buying behaviour. Examining how these two modes of commerce influence consumer preferences and market dynamics provide valuable insights for retailers, marketers, and policymakers. The present study aims to analyse the role of retail and e-commerce in revolutionizing the consumer market and shaping the future of commerce.Retailers are increasingly adopting omnichannel strategies that integrate physical stores with digital platforms to provide a seamless shopping experience. As consumer preferences continue to evolve toward speed, personalization, and convenience, businesses must adapt to remain competitive. The research focuses on understanding consumer preferences, satisfaction levels, and factors affecting purchase decisions in both online and offline retail environments. Primary data were collected from consumers using a structured questionnaire, while secondary data were sourced from books, journals, websites, and industry reports. Descriptive and analytical tools such as percentage analysis, mean score analysis, and chi-square tests were applied to interpret the data.

OBJECTIVES

1. To study the role of retail and e-commerce in revolutionizing the consumer market.
2. To analyse the growth and development of retail and e-commerce in the consumer market.

3. To examine consumer buying behaviour towards traditional retail stores and e-commerce platforms.
4. To identify the factors influencing consumers' preference for online and offline shopping.
5. To study the level of consumer satisfaction with retail stores and e-commerce services.
6. To compare retail and e-commerce in terms of convenience, pricing, product variety, and service quality.
7. To understand the impact of digital technology and online payment systems on consumer purchase decisions.

SCOPE OF THE STUDY

The scope of the present study is to examine the role of retail and e-commerce in transforming the consumer market and reshaping purchasing behaviour. The study focuses on understanding how traditional retail formats and e-commerce platforms influence consumer preferences, satisfaction levels, and decision-making processes. It seeks to analyse the extent to which digitalization and technological advancements have altered shopping patterns and consumer expectations in the modern market environment. The study covers both **online and offline retail formats**, highlighting their strengths, limitations, and complementary roles in meeting consumer needs. It includes an assessment of key factors influencing consumer choice such as convenience, pricing, product variety, quality, trust, delivery efficiency, payment systems, and after-sales service. By examining these factors, the study provides insights into why consumers prefer one mode of shopping over the other or adopt a hybrid approach.

The scope also extends to analysing the impact of **demographic variables** such as age, income, education, and occupation on consumer buying behaviour. This helps in identifying patterns and variations in preferences across different consumer segments. The study considers the growing importance of mobile commerce, digital payments, online reviews, and social media in shaping consumer awareness and purchase decisions. Geographically, the study is confined to a selected area and is based on a limited sample size. Therefore, the findings are context-specific and may not be generalized to all regions. The scope of the study is restricted to consumer perspectives and does not include a detailed analysis of organizational financial performance or supply-chain efficiency. Overall, the study provides valuable insights for retailers, e-commerce firms, marketers, and policymakers by highlighting emerging trends and challenges in the consumer market. The findings can assist businesses in designing effective marketing strategies and improving customer experience in an increasingly competitive retail and e-commerce environment.

- The study focuses on understanding the role of retail and e-commerce in transforming the consumer market.
- It examines consumer buying behaviour, preferences, and attitudes towards online and offline shopping modes.
- The study covers factors influencing purchase decisions such as price, convenience, product variety, quality, trust, and service quality.
- It analyses the level of consumer satisfaction with retail stores and e-commerce platforms.
- The scope includes a comparison between traditional retail formats and e-commerce platforms in terms of accessibility, efficiency, and customer experience.

REVIEW OF LITERATURE

The transformation of the consumer market through retail and e-commerce has drawn significant academic and industry attention in recent years. A number of researchers have explored how digital technologies and changing consumer behavior are reshaping the retail landscape.

According to Smith and Anderson (2018), the surge in e-commerce adoption is largely driven by increased internet accessibility and mobile device usage. Their study found that consumers today prefer online shopping due to its convenience, wider product selection, and ease of price comparisons, which has forced traditional retailers to reimagine their business models.

Jones et al. (2019) highlighted that omnichannel retailing—where customers interact with a brand across multiple platforms—enhances customer satisfaction and loyalty. They reported that retailers integrating offline and online channels achieve higher sales and improved customer engagement compared to single-channel retailers.

Research by Kumar and Shah (2020) examined the impact of digital innovations such as artificial intelligence, big data analytics, and personalized recommendations in e-commerce. Their findings indicate that such technologies not only increase operational efficiency but also significantly influence consumer purchasing decisions by offering personalized shopping experiences.

In a global analysis, Lee and Chen (2021) pointed out that e-commerce has expanded market reach for businesses of all sizes, enabling small retailers to compete beyond local boundaries. Their study emphasizes how digital marketplaces have democratized access to global customers, reshaping competition in the consumer market.

However, not all literature views this transformation as positive. Patel and Singh (2022) raise concerns about cybersecurity, data privacy, and the sustainability of digital retail spaces. They stressed the need for stronger regulatory frameworks and better consumer protection mechanisms in the online environment.

Lastly, a comprehensive study by World Retail Federation (2023) suggests that the COVID-19 pandemic accelerated the shift toward e-commerce, leading to long-term changes in shopping behaviour. According to their report, many consumers who switched to online shopping during the pandemic continue to prefer it even after restrictions were lifted, confirming a permanent shift in consumer patterns.

RESEARCH METHODOLOGY

1. Research Design

The study adopts a descriptive and analytical research design. It aims to analyze how retail and e-commerce have transformed consumer markets, buying behaviour, and purchase decisions.

2. Nature of the Study

- Empirical study
- Combination of quantitative and qualitative approaches

3. Sources of Data

a) Primary Data

Primary data are collected from consumers to understand:

- Preference between retail and e-commerce
- Factors influencing online and offline shopping
- Impact on buying behaviour and satisfaction

Tool used:

- Structured questionnaire
- Five-point Likert scale

b) Secondary Data

Secondary data are collected from:

- Books on marketing, retailing, and e-commerce
- Journals and research articles
- Government reports

- Company websites and industry reports
- Newspapers and magazines

4. Sampling Design

- **Sampling Method:** Convenience sampling
- **Sample Size:** (Example) 120 / 150 / 200 consumers
- **Sampling Area:** (Specify) Urban consumers / City / District / State

5. Data Collection Method

- Online survey (Google Forms)
- Direct personal interaction with respondents

6. Period of Study

The study covers a period of **3 to 6 months** during the academic year (mention year).

7. Tools for Data Analysis

The collected data are analyzed using:

- Percentage analysis
- Mean score analysis
- Chi-square test
- Ranking method
- Graphs and charts

8. Hypothesis of the Study (Sample)

- H_0: There is no significant difference between retail and e-commerce in influencing consumer buying behaviour.
- H_1: There is a significant difference between retail and e-commerce in influencing consumer buying behaviour.

9. Scope of the Study

- Focuses on consumer perception of retail and e-commerce
- Highlights changing buying behaviour
- Helps retailers understand market trends

10. Limitations of the Study

- Study is confined to a limited geographical area
- Responses may be biased
- Time and cost constraints

DISCUSSION

The findings of the study clearly indicate that retail and e-commerce have collectively played a transformative role in shaping the modern consumer market. The rapid adoption of digital technologies, smartphones, and online payment systems has significantly altered consumer buying behaviour. Consumers increasingly value convenience, time efficiency, product variety, and price transparency, which are key strengths of e-commerce platforms. As a result, online shopping has emerged as a preferred mode of purchase, especially among young and urban consumers. The discussion also reveals that traditional retail has not lost its relevance. Physical retail stores continue to attract consumers who prefer personal interaction, immediate product availability, and the ability to inspect goods before purchase. Trust, tactile experience, and instant gratification remain strong advantages of brick-and-mortar retail. The study highlights that consumers often adopt a hybrid approach, using both online and offline channels depending on the nature of the product and urgency of need. And important outcome of the study is the growing integration of digital technologies into traditional retail formats. Many retailers have adopted omni-channel strategies such as online ordering with in-store pickup, digital payment options, and personalized marketing through mobile applications. This convergence has reduced the gap between retail and e-commerce, creating a seamless shopping

experience for consumers. The discussion further emphasizes that price sensitivity, promotional offers, and easy return policies significantly influence consumer preferences towards e-commerce. At the same time, customer service quality and after-sales support strengthen loyalty towards physical retail stores. Overall, the study suggests that retail and e-commerce are not competitors but complementary systems. Their combined growth is revolutionizing the consumer market by enhancing accessibility, efficiency, and customer satisfaction, thereby reshaping the future of commerce.

LIMITATIONS

Despite the efforts made to conduct the study in a systematic and objective manner, certain limitations were unavoidable. The study is restricted to a limited geographical area, and therefore the findings reflect the behaviour and perceptions of consumers within that specific region only. As consumer preferences and access to technology vary across regions, the results may not be generalized to the entire population. The sample size selected for the study is also limited due to time and resource constraints, which may affect the accuracy and representativeness of the findings. The study primarily relies on primary data collected through a structured questionnaire. As a result, the responses are subject to personal bias, misunderstanding of questions, and the respondents' willingness to provide accurate information. In some cases, respondents m ay have given socially desirable answers rather than their true opinions, which could influence the results of the analysis. In addition, the study was conducted within a short time frame, restricting the scope for longitudinal analysis and the observation of changes in consumer behaviour over an extended period. Another limitation of the study is its focus on consumer perspectives alone. The research does not include an in-depth examination of the operational, financial, or logistical challenges faced by retail stores and e-commerce companies. Factors such as supply chain efficiency, cost structures, and profitability are outside the scope of the study. Moreover, the rapid pace of technological advancement in e-commerce, including innovations in digital payments, artificial intelligence, and mobile commerce, may reduce the long-term relevance of the findings. The study also does not cover all product categories, and consumer preferences may differ significantly based on the nature of goods purchased. External factors such as economic conditions, promotional offers, and seasonal variations during the period of data collection may have influenced consumer responses. These limitations should be considered while interpreting the findings and drawing conclusions from the study.

- The study is confined to a limited geographical area, and therefore the findings may not be fully representative of consumers in other regions.
- The research is based on a limited sample size, which may affect the generalization of the results.
- The study relies mainly on primary data collected through questionnaires, and responses may be influenced by personal bias or inaccurate information provided by respondents.
- Time constraints restricted the scope of data collection and detailed analysis.
- The study focuses primarily on consumer perspectives and does not include an in-depth analysis of retailers' or e-commerce firms' financial performance.

FINDINGS OF THE STUDY

1. The study finds that retail and e-commerce have significantly transformed consumer buying behaviour by offering multiple purchasing options and greater convenience.
2. A majority of consumers prefer e-commerce platforms due to factors such as time-saving, ease of access, wider product variety, and attractive pricing.
3. Traditional retail stores continue to play an important role, especially for products requiring physical inspection, immediate availability, and personal interaction.

4. Price discounts, promotional offers, and flexible payment options strongly influence consumers' preference for e-commerce shopping.
5. Trust, product quality assurance, and after-sales service are major reasons for consumers' continued reliance on physical retail outlets.
6. The study reveals that consumers increasingly follow an omni-channel approach, using both online and offline modes depending on product type and urgency.
7. Digital payment systems and mobile applications have enhanced customer convenience and encouraged the growth of e-commerce.
8. Younger consumers show a higher preference for online shopping, while older consumers tend to favour traditional retail formats.
9. Customer satisfaction levels are high in both retail and e-commerce; however, satisfaction drivers differ between the two modes.
10. The integration of technology in retail, such as digital billing, loyalty programs, and online order tracking, has improved operational efficiency and customer experience.

SUGGESTIONS OF THE STUDY

1. Retailers should adopt omni-channel strategies by integrating online and offline platforms to provide a seamless shopping experience for consumers.
2. Traditional retail stores should strengthen their digital presence through websites, mobile applications, and social media marketing to remain competitive.
3. E-commerce companies should focus on improving trust and security, particularly in online payments and data privacy, to enhance consumer confidence.
4. Retailers and e-commerce platforms should offer personalized marketing and recommendations based on consumer preferences and purchase history.
5. Improvement in logistics, delivery speed, and return policies is essential for increasing customer satisfaction in e-commerce.
6. Physical retail stores should emphasize customer service quality, in-store experience, and personalized assistance to differentiate themselves from online platforms.
7. Both retail and e-commerce businesses should invest in advanced technologies such as artificial intelligence, data analytics, and customer relationship management systems.
8. Retailers should introduce loyalty programs, digital payments, and promotional offers to attract and retain customers.
9. Training programs should be provided to employees to enhance their technical skills and customer-handling capabilities.
10. Government and policymakers should support the retail and e-commerce sector by improving digital infrastructure, internet accessibility, and consumer protection regulations.

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EMPIRICAL STUDY ON THE ANTECEDENTS OF CUSTOMER SATISFACTION IN DIGITAL FINANCIAL SERVICES

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ABSTRACT

Digital marketing-enabled financial technologies have greatly transformed customer engagement in the financial services sector. The paper explores the Antecedents of Customer Satisfaction in Digital Financial Services, focusing on the roles of trust and security, convenience and accessibility, cost effectiveness, personalized services, and digital literacy. Primary data from 112 respondents were collected through a structured questionnaire. Reliability and validity were checked through Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE). Data analyses were done through descriptive statistics, Z-tests, ANOVA, multiple regression, and Structural Equation Modeling (SEM). The results indicate that convenience and accessibility and cost-effectiveness significantly enhance digital literacy, which, in turn, improves customer satisfaction. In contrast, trust and security and personalized services do not show a significant direct effect. The findings emphasize the importance of functional usability and affordability in promoting the adoption of digital financial services.

KEYWORDS: Digital marketing, Customer Satisfaction, Digital Financial Services, Digital Literacy, Structural Equation Modeling (SEM)

INTRODUCTION

The financial services sector has changed with the rapid advancement of digital technology. Digital technology has revolutionized the consumption of services from banking institutions and other financial service providers. Improved access to financial transactions, efficiency, and ease in execution has found a source all over the world through digital wallets, online platforms, and mobile banking applications. This digital transformation has remarkably improved the operation efficiency of the financial institutions. It has simultaneously enhanced the quality of customer experience through customized service offers, continual access (24/7), and streamlined processes. However, understanding the perceived and reacted-to advances in technology by consumers is of great importance, considering the growth expected to continue in the adoption of digital financial technologies in the years ahead.

IMPORTANCE OF THE STUDY

Financial institutions compete hard to maintain their competitiveness in an increasingly digital world; hence, the importance of knowing consumer satisfaction regarding financial

digital technologies. This study examines consumer perception on the usability, affordability, trustworthiness, security, and customization of digital financial services. By looking into customer satisfaction, bank institutions can work towards spotting areas for improvement and plan towards focusing more on experience improvement, enhancing customer loyalty, and ultimately encouraging the consumption of digital banking services. This study adds to the general literature on the effects of digital transformation on the financial sector as it shall provide key insights to both industry practitioners and academics.

PROBLEM STATEMENT

Despite the general acceptance of digital financial technology, a number of issues remain in place relating to client trust, security concerns, and the value of such services. The intricacy involved with the adoption of new technologies, coupled with fears over data breaches and hacking, has prevented many customers from being entirely comfortable with the concepts adopted within digital systems. Moreover, a portion of consumers view digital financial services as an additional, unnecessary source of financial expense rather than a means to save or economize. Therefore, such people cannot understand the overall cost-effectiveness of these services. Thus, this research will answer those questions: what clients are satisfied and dissatisfied with in digital financial technologies, and what factors within digital financial technologies influence client acceptance and satisfaction.

RESEARCH QUESTION

1. How do customers feel about the ease of use and security and reliability of digital financial services?
2. How does digital literacy and personalized services affect customer satisfaction with digital financial technologies?

OBJECTIVES OF THE STUDY

1. To evaluate customer satisfaction with the usability, security, and trust of digital financial services.
2. To analyze how the digital literacy and personal services have implications for client satisfaction in financial technology.

CONCEPTUAL FRAMEWORK
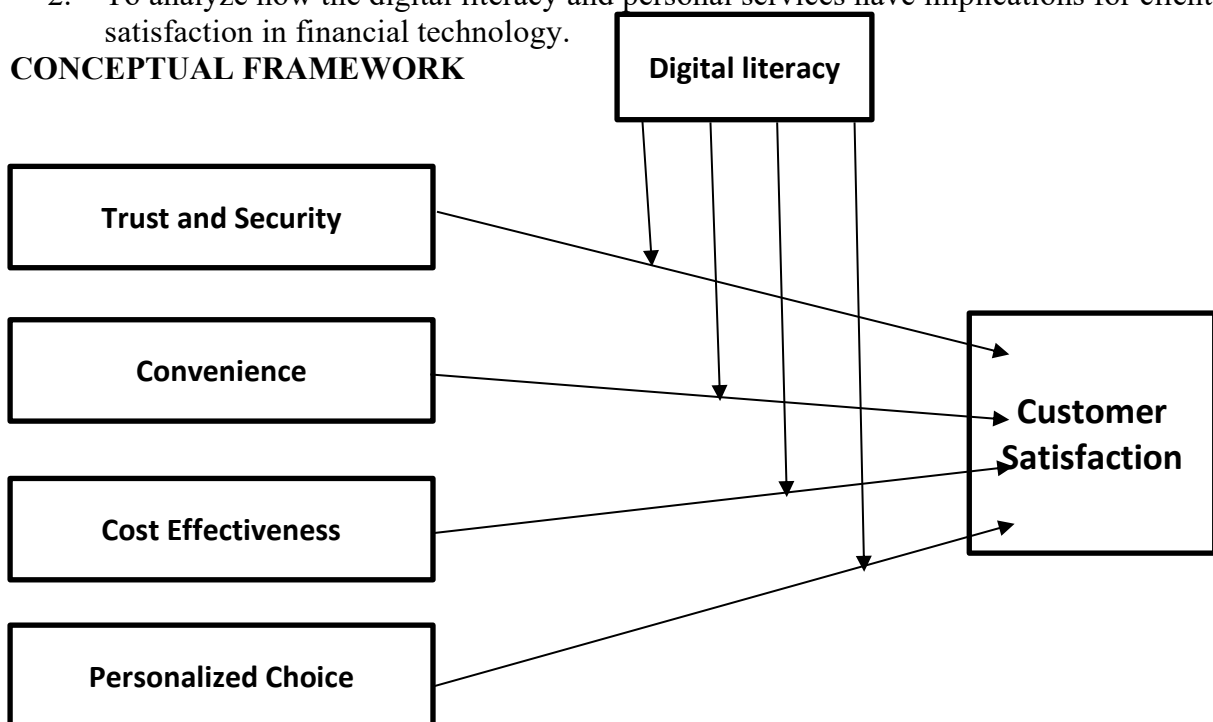
METHODOLOGY

A self-administered questionnaire was used in the study with **112 respondents** as participated in the study, the process used in the study was **random sampling** where each

person in the target population had the same probability of being selected to participate in the study. The **primary data** was gathered using closed **questionnaires** (google form) focused on as the aspects of digital financial services including flexibilities, security, trust, and the level of customer satisfaction. **Secondary data** were gathered from the literature review, surveys, journal articles and other reports that focused on the digital financial technologies to get background information and benchmarks. For data analysis, **SPSS tools** were employed: Occupational reliability analysis was done using Cronbach's Alpha for the items of the questionnaire; descriptive analysis of quantitative data was done by calculating mean, median, Standard Deviation (SD) and Mean Rank; significance difference in the two groups (male/female) was analyzed using Z test; Educational qualification was analyzed by using one way ANOVA analysis; multiple regression analysis was conducted to find net effect of the specific factors on digital literacy; and last and mediational models were applied together with Structural Equation Modeling (SEM) for constructed pathways and influence of one variable on another, and concerning digital literacy.

RESULTS & DISCUSSION

Table 1
RELIABILITY

Factors	Cronbach's Alpha (if Item Deleted)	Composite Reliability	Convergent Validity AVE	Collinearity
	>0.70	>0.70	>0.50	<3.3
Trust and Security	.712	.867	.743	5.785
Convenience and Accessibility	.761	.741	.653	6.925
Cost-Effectiveness	.758	.755	.793	4.091
Personalized Services	.783	.709	.836	6.528
Digital Literacy	.785	.682	.616	8.647

Source: Compiled from Primary data

Table-1 indicates that the reliability test of the questionnaire items reveals a high degree of reliability and validity with strong Cronbach's Alpha values exceeding 0.70 and composite reliability scores that are well above the threshold limit. Moreover, all the AVE values are greater than the threshold limit, and the levels of collinearity are within the acceptable limit. The results presented here give strong support both to the quality of data collected and to the validity of subsequent analysis. The questionnaire's reliability and validity carry over to increase the generalizability and usefulness of research results.

Table 2
DESCRIPTIVE STATISTICS

Satisfaction on digital finance technology	Min	Max	Mean	Median	SD	Mean Rank
Trust and Security	12	25	20.12	20.00	3.40	1
Convenience and Accessibility	11	25	19.85	19.50	3.69	2

Cost-Effectiveness	10	25	18.26	18.00	3.56	4
Personalized Services	7	25	18.21	18.00	4.34	5
Digital Literacy	10	25	19.23	19.50	4.18	3

Source: Compiled from Primary data

Table 2 shows that users value Trust and Security, Convenience, and Accessibility the most in digital financial technologies. These factors received higher ratings than Personalized Services and Digital Literacy.

The standard deviation suggests there is a general agreement on the importance of these factors, but individual experiences may vary. The median and mean scores are similar, indicating balanced responses without significant outliers.

To improve user satisfaction and encourage adoption, digital finance providers should focus on strengthening Trust, enhancing Convenience, and ensuring Accessibility. Additionally, offering Personalized Services and improving Digital Literacy could help meet user needs better.

Structural Equation Model: Path Analysis
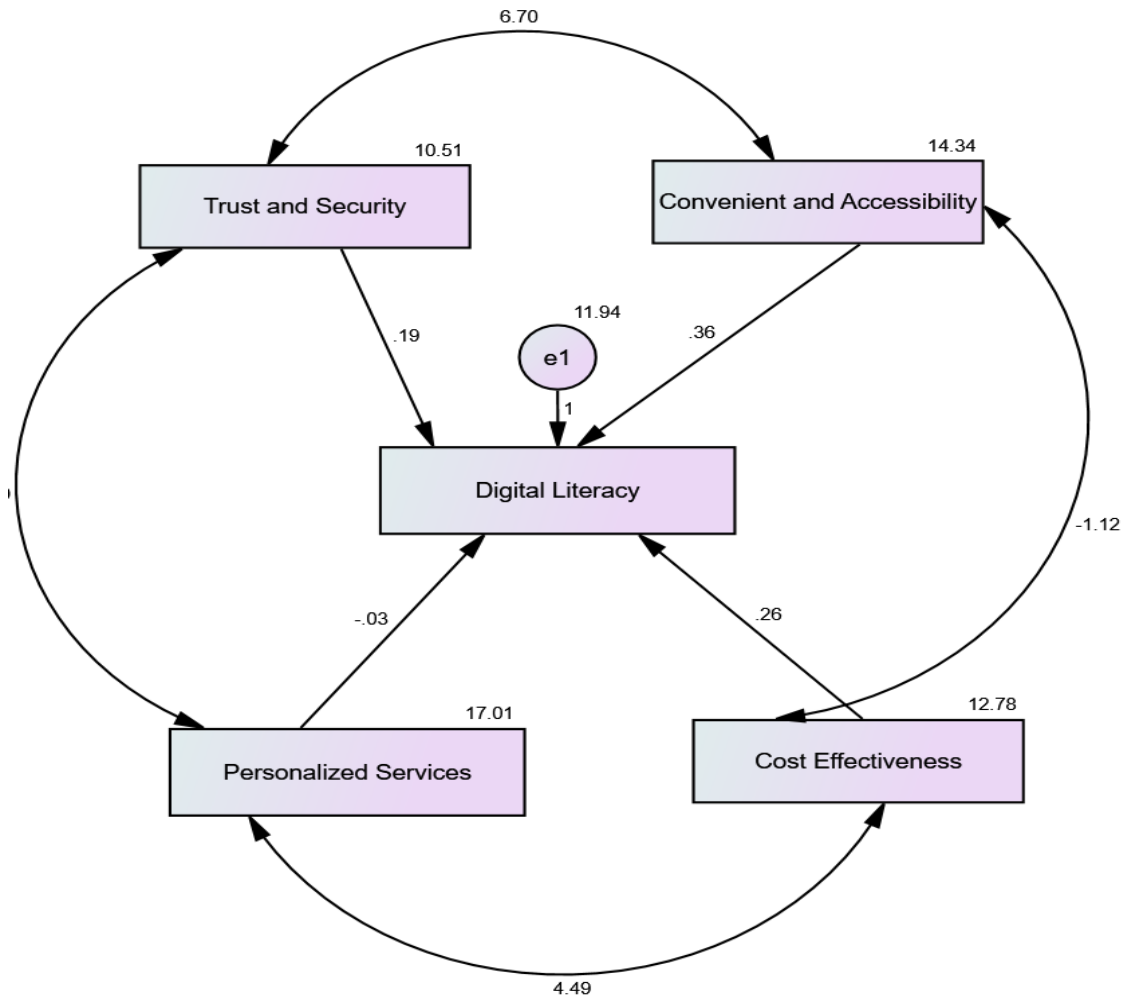
KEY FINDINGS

According to the ANOVA study, perceptions of accessibility and convenience are significantly influenced by educational background (F=7.364, p<0.001). Furthermore, there is

a significant variation in the opinions of personalized services (F=4.835, p<0.001), indicating that people's views of service availability and customization are influenced by their level of education. Higher education levels are linked to higher expectations for individualized learning experiences and technological ease, underscoring the crucial role that education plays in influencing attitudes toward the use of AI in the classroom.

Regression Weights of the Variables Included in the Structural Equation Model

			Estimate	S.E.	C.R.	P	Remarks
Digital Literacy	←	Trust and Security	.187	.128	1.456	.145	Not significant
Digital Literacy	←	Convenient and Accessibility	.364	.105	3.454	***	Significant
Digital Literacy	←	Personalized Services	-.030	.088	-.344	.731	Not Significant
Digital Literacy	←	Cost Effectiveness	.256	.097	2.643	.008	Significant

*** Significant at 1% level (p<0.001)

The regression estimates in SEM test the impact of the four antecedents, namely Trust and Security, Convenience and Accessibility, Personalized Services, and Cost Effectiveness, on Digital Literacy. Thus, the given standardized estimate, standard error, critical ratio (C.R.), and p-value (p) show both the direction and statistical significance of each linkage.

Trust & Security → Digital Literacy

The standardized regression coefficient for Trust and Security on Digital Literacy is 0.187, representing a positive relationship. However, the related C.R. was 1.456, which does not exceed the conventional threshold of ±1.96, with a p-value of 0.145 (p > 0.05).

Although Trust and Security are positively correlated with Digital Literacy, the relationship is not statistically significant. That implies that data privacy, security, and reliability issues may not be a critical factor influencing the level of digital literacy among respondents. A possible interpretation could be that users consider the lack of security issues as a default state in digital contexts, rather than a trigger for developing higher levels of digital competence.

Convenience and Accessibility → Digital Literacy

The Convenience and Accessibility regression weight is 0.364, reflecting a strong positive influence on Digital Literacy. The C.R. stands at 3.454, greater than the critical value, with a p-value < 0.001.

The result indicates that Convenience and Accessibility are strong predictors of Digital Literacy. Easy access to digital tools, convenience in their use, and opportunities for flexible usage significantly enhance the competence of individuals in acquiring and then applying digital skills. Theoretically, it seems that structural and infrastructural ease is important for promoting digital competence, especially in educational and institutional settings.

Personalized Services → Digital Literacy

The estimate for Personalised Services is –0.030, showing a very small and negative relationship with Digital Literacy. The C.R. is –0.344 and the p-value is 0.731, reflecting non-significance.

The non-significant and negative coefficient suggests that customized digital services do not significantly contribute to the development of Digital Literacy. This could be indicative

of fundamental access and usability being more important than advanced personalization features. Academically and practically, personalization by itself may not lead to better skill development unless users already possess a threshold level of digital competence.

Cost Effectiveness → Digital Literacy

The regression estimate for Cost Effectiveness is 0.256, reflecting a positive and meaningful relationship with Digital Literacy. The C.R. is 2.643 and the p-value 0.008, suggesting statistical significance at a 1% level. Interpretation: This finding indicates that affordable access to digital resources significantly improves Digital Literacy. Cheaper costs for internet use, devices, and other digital services increase the frequency of use, leading to better digital skills. Policywise and from a research point of view, these results highlight the relevance of cost-reduction strategies regarding the mitigation of the digital divide.

Overall Model Interpretation The SEM results also show that Convenience and Accessibility and Cost Effectiveness significantly determine Digital Literacy, while Trust and Security and Personalized Services do not. Research Implications The findings indicate that functional and economic factors have a greater influence on Digital Literacy than psychological or customization-related factors. Therefore, interventions to enhance Digital Literacy should focus on ease of access, availability of resources, and affordability, rather than personalization and/or security assurances.

The model provides strong empirical evidence that infrastructures, accessibility, and cost efficiency are crucial to improve Digital Literacy. The non-significant variables show directions where further qualitative investigation might be necessary to contextualize nuances based on specific demographics or contexts. Overall, the findings contribute substantially to the literature on the adoption of digital literacy and provide actionable insights for educators, policymakers, and institutional administrators.

Co-variances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Remarks
Trust and Security	↔	Personalized Services	3.689	1.081	3.412	***	Significant
Trust and Security	↔	Convenient and Accessibility	6.700	1.280	5.235	***	Significant
Convenient and Accessibility	↔	Cost Effectiveness	-1.123	1.041	-1.078	.281	Not Significant
Personalized Services	↔	Cost Effectiveness	4.486	1.400	3.204	.001	Significant

Group 1 – Default Model

Estimation of covariances from the default SEM shows the relationships between the exogenous constructs: Trust and Security, Personalized Services, Convenience and Accessibility, and Cost Effectiveness. These covariances were indicative of the theoretical and empirical relationships among these constructs within the model based on their significance.

Trust and Security ↔ Personalized Services

The covariance between Trust and Security and Personalized Services is 3.689, with a standard error of 1.081 and a critical ratio of 3.412, greater than the conventional threshold of ±1.96. It is significant at a 1% significance level (p < 0.001).

The strong positive covariance would then indicate a robust relationship between trust mechanisms and the delivery of customized services. In fact, those who express a higher level of trust and security perceive digital services to be more personalized. In practice, this indicates that personalization works in a state where users feel safe and confident in digital platforms. Theoretically, trust serves as an enabling condition for the acceptance of customized digital

interactions; this is in line with assumptions of TAM and UTAUT, in which trust increases perceived system value.

Trust and Security ↔ Convenience and Accessibility

The covariance between Trust and Security and Convenience and Accessibility is 6.700 with a standard error of 1.280 and a C.R. of 5.235, showing high statistical significance at the 1% level since p < 0.001.

The sizeable magnitude and statistical significance of this covariance indicate that perceptions of trust and security are strongly intertwined with perceptions of convenience and accessibility. Where users perceive security, they are more likely to view the digital systems as easy and convenient to access. This suggests that trust influences not only the direct intention to adopt but also enhances perceptions of usability indirectly, further strengthening the overall digital engagement experience.

Convenience and Accessibility ↔ Cost Effectiveness

The covariance between Convenience and Accessibility and Cost Effectiveness is –1.123, with a standard error of 1.041 and a C.R. of –1.078. Based on the p-value, p = 0.281, the relationship is not statistically significant.

The insignificant covariance suggests that convenience and accessibility concerns are separate from cost considerations among the respondents. This means that issues regarding the ease of application and the availability of service access are judged independently of concerns about costs. Therefore, it indicates from a theoretical point of view that even if the platforms are convenient and accessible, they may not be perceived as cost-efficient, and this reflects the complexity of user assessment in digital contexts.

Personalized Services ↔ Cost Effectiveness

Personalized Services and Cost Effectiveness have a covariance of 4.486, presenting a standard error of 1.400 and a C.R. of 3.204, significant at the 1% level with p = 0.001.

This highly positive covariance suggests that improved cost efficiency for the respondents is associated with personalized digital services. Personalization could avoid over-consumption of services, optimize service provision, and enhance perceived value for money. Supporting the theories of value-based adoption, personalization enhances the perceived benefits relative to costs, thus improving perceptions of cost-effectiveness.

Overall Interpretation of the Covariance Structure

The covariance results indicate that Trust and Security have a central position because they are significantly associated with both Personalized Services and Convenience and Accessibility, pointing out its foundational character in digital environments. Moreover, there is a significant association of Personalized Services with Cost Effectiveness, while Convenience and Accessibility is independent at a statistical level from cost considerations.

Research and Policy Implications - This means strengthening trust and security mechanisms, as this would enhance perceptions of both usability and personalization. The strategies of personalization can be used to enhance perceived value and cost efficiency. This is because cost-related aspects have to be considered in a different manner; convenience does not ensure any perception of affordability. Conclusion From a scholarly point of view, the covariance structure confirms that psychological and functional constructs are intertwined, while economic considerations work as a partially independent dimension. The findings enrich the results of SEM by detailing how exogenous variables interact and, therefore, enhance the power of explanation and the theoretical robustness of the model.

RESULTS

The results show that customers value convenience, accessibility, and affordability more when using digital financial services. The SEM results confirm that convenience and accessibility are the main factors that predict digital literacy, followed by cost-effectiveness. This underscores the need for user-friendly and affordable digital platforms. The lack of

significant effects from trust and security indicates that customers may see these factors as basic expectations rather than reasons to improve their skills.

From a management viewpoint, financial institutions should focus on making digital interfaces easier to use, increasing access, and lowering costs to enhance customer satisfaction and digital literacy. Policymakers and regulators can use these findings to create inclusive digital finance programs that prioritize affordability and accessibility instead of overly complicated technology. Academically, this study contributes to digital marketing and technology adoption theories by confirming the importance of functional and economic aspects

- Convenience and accessibility greatly increase digital literacy ($p < 0.001$).
- Cost-effectiveness has improved digital literacy ($p = 0.008$).
- Trust and security and personalized services do not differ as factors significantly influencing digital literacy ($p = 0.145$ and $p = 0.731$, respectively).
- It is positively correlated with trust and security with both personal services and convenience and accessibility, $p < 0.001$.
- Highly related to cost-effectiveness are the personalized services ($p = 0.001$). Convenience and accessibility were not associated at a considerable level with cost-effectiveness ($p = 0.281$).

CONCLUSION

This study provides strong evidence that digital marketing and financial technologies affect customer satisfaction mainly through convenience, accessibility, and cost efficiency. While trust, security, and personalization are important for digital platforms, they do not independently promote digital literacy or satisfaction among users. The results highlight the need for financial institutions to focus on practical usability and economic value to improve customer engagement and long-term satisfaction. Overall, the research enhances our understanding of digital marketing in financial services and gives practical advice for professionals looking to improve customer experience in a more digital financial environment. Future studies could build on this research by including long-term data, larger samples, or comparisons across regions and financial service categories.

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A STUDY ON CUSTOMER SATISFACTION TOWARDS ONLINE GOLD INVESTMENT

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ABSTRACT

This study investigates customer satisfaction towards online gold investment platforms, focusing on factors such as security, ease of use, pricing, and transparency. As the adoption of digital gold platforms continues to rise, especially in emerging markets like India, understanding the satisfaction levels of customers is crucial for platform providers. The research explores how demographic factors like age, income, and occupation influence user satisfaction with online gold investments. A survey of 125 respondents was conducted, and data were analysed using ANOVA and Chi-square tests to identify significant variations in satisfaction levels across different demographic groups. The findings suggest that younger age groups (particularly 25-35 years) report higher satisfaction due to their technological proficiency, while higher-income individuals show greater satisfaction due to their ability to make more frequent investments. Additionally, salaried employees exhibit higher satisfaction levels, likely due to their stable income and systematic approach to investing. The study concludes that platform security, ease of use, and transparency are key factors that significantly impact customer satisfaction. Recommendations include enhancing security features, simplifying user interfaces, and increasing educational efforts for potential customers. The research provides valuable insights into the factors influencing satisfaction with online gold investment platforms and offers recommendations for improving user experience and increasing market adoption.

KEYWORDS: at the end will help categorize your research and make it easier for readers to identify the main topics covered in the study.

INTRODUCTION

Online gold investment refers to investing in gold through digital platforms or mobile applications, where investors can buy, sell, or store gold without the need for physical ownership. This type of investment is rapidly gaining popularity, especially in countries like India, where traditional gold investment has long been considered a safe option during periods

of economic uncertainty. With the advent of technology and the growing use of mobile phones and the internet, online gold platforms have made gold investment more accessible, convenient, and transparent. These platforms allow users to invest in fractional gold units, which lowers the entry barrier for small investors and enables them to buy gold in small denominations, starting as low as ₹1. In India, digital gold platforms like PhonePe, Paytm, and Google Pay have made gold investment an everyday financial activity for the masses.

IMPORTANCE OF THE STUDY

Gold is one of the most widely recognized investment options in India and around the world. Historically, gold has been considered a safe-haven asset that preserves wealth, particularly during times of economic crises or inflation. With increasing interest in online platforms for trading and investing, understanding the factors that influence customer satisfaction with these platforms is vital for both service providers and investors. The research addresses the growing importance of customer satisfaction in the digital investment space. As platforms compete to offer more innovative solutions and improve user experiences, it becomes necessary to assess how customers perceive and evaluate these platforms. Understanding customer preferences, trust, and expectations will help businesses improve their offerings, retain customers, and gain a competitive advantage in the market.

STATEMENT OF THE STUDY

This study investigates customer satisfaction towards online gold investment platforms, focusing on factors such as ease of use, security, pricing, trustworthiness, and service quality. As digital gold investment grows in popularity, there is a need to understand the diverse factors that influence customer satisfaction and trust in these platforms. Specifically, this study aims to examine how demographic factors, such as age, income, and occupation, impact customer satisfaction and how these factors vary across different user segments. Given that gold is a significant cultural and financial asset, the study seeks to provide insights into the attitudes and behaviors of online investors in the gold market, helping businesses make data-driven decisions. By addressing key factors influencing satisfaction, the research also provides recommendations to platform providers on how they can improve customer experience and boost market adoption. Ultimately, the study contributes to a better understanding of the current state of online gold investment, highlighting the critical components of satisfaction that platforms must focus on to attract and retain customers.

OBJECTIVES OF THE STUDY

The main objectives of this study are as follows:

1. **To analyze customer satisfaction** with online gold investment platforms, identifying key factors that influence their satisfaction levels.
2. **To examine the impact of demographic factors**, such as **age**, **income**, and **occupation**, on customer satisfaction towards online gold platforms.
3. **To assess the role of trust**, **security**, and **ease of use** in influencing the satisfaction levels of customers using digital gold platforms.
4. **To compare satisfaction levels** across different age groups, income brackets, and occupations to understand how various customer segments perceive online gold investments.
5. **To provide actionable recommendations** to platform providers based on the study findings, aimed at improving the user experience and increasing customer satisfaction.
6. **To explore the future potential of online gold investment** and how customer satisfaction can be leveraged to boost market growth.

SCOPE OF THE STUDY

This study aims to explore customer satisfaction levels towards online gold investment platforms, focusing on the various factors that influence investors' decisions and their experiences. The scope of the study is geographically limited to a specific region (you can

mention a city, state, or country depending on your sample area). It considers **125 respondents**, who are active users of digital gold investment services, and evaluates their perceptions, preferences, and concerns. The primary focus of the research is to assess customer satisfaction with respect to **convenience, security, pricing, service quality, and platform reliability**. By evaluating these aspects, the study seeks to identify the **key factors** that contribute to a positive or negative customer experience, as well as **demographic factors** such as age, income, and occupation, which may influence satisfaction levels. The findings from this research will help online gold investment companies improve their platforms and services to enhance customer experience, increase user trust, and encourage wider adoption. Additionally, it provides valuable insights into the market trends and customer behavior within the online gold investment sector, which can be leveraged by businesses and policymakers to strengthen the industry. While the study provides a broad analysis, it does not delve into advanced aspects such as the **regulatory landscape**, **financial performance of investment platforms**, or long-term effects of online gold investments on customer wealth. The research is also limited to **quantitative data collection** (surveys) and does not include in-depth qualitative interviews or case studies.

LIMITATIONS OF THE STUDY

- **Sample Size**: The study focuses on a sample of 125 respondents, which may not fully represent the diverse customer base of all online gold platforms.
- **Geographic Focus**: The study is primarily based on the Indian market, which limits its applicability to other regions with different market dynamics.
- **Subjectivity**: Since the study depends on respondents' perceptions, there may be inherent subjectivity in their responses, especially regarding security and ease of use.

Despite these limitations, the findings of this study will offer valuable insights into customer satisfaction with online gold platforms and provide recommendations to businesses operating in this space.

LITERATURE REVIEW: CUSTOMER SATISFACTION TOWARDS ONLINE GOLD INVESTMENT

1. Factors Influencing Customer Satisfaction

Several studies have explored factors affecting customer satisfaction with online gold investment platforms. **Security** and **trust** are frequently identified as major determinants. According to **Ravindran et al. (2021)**, the trust placed in digital gold platforms is directly linked to the **security features** provided by these platforms. If customers perceive their transactions as secure, they are more likely to invest and express satisfaction. Additionally, **Singh and Kumar (2022)** found that the **ease of use** and **user-friendly interfaces** of mobile apps like **PhonePe** and **Paytm Gold** significantly contribute to overall customer satisfaction.

2. Demographic Influence on Satisfaction

A study by **Sharma et al. (2023)** examined how demographic factors such as **age** and **income** influence satisfaction. The study found that **younger customers** (especially those aged **25-35**) were more inclined to use digital gold platforms due to their familiarity with technology, whereas **older individuals** often expressed concerns about the **security** and **complexity** of these platforms. On the other hand, higher-income individuals tend to invest more frequently in digital gold and report higher satisfaction levels due to the **lower perceived risks**.

3. Transparency and Trust in Online Gold Platforms

Singh et al. (2022) emphasize the importance of **transparency** in digital gold platforms. Customers are more satisfied when platforms provide clear information about **gold prices**, **fees**, and **storage processes**. **Transparency** not only builds **trust** but also reduces skepticism, particularly in an industry where customers fear fraud or hidden charges. Platforms that offer real-time updates and detailed reports on investments tend to receive higher satisfaction ratings.

RESEARCH METHODOLOGY

Research Design

The research follows a **descriptive research design**, which is commonly used to explore and describe phenomena in their natural settings. The purpose of this design is to analyze customer satisfaction with online gold investment platforms. **Descriptive research** allows for the collection of both **qualitative** and **quantitative data**, providing a comprehensive understanding of how users perceive these platforms and what factors influence their satisfaction. This design is particularly suitable for this study because it helps in identifying patterns and relationships between **demographic variables** (such as **age**, **income**, and **occupation**) and the **customer satisfaction** associated with online gold investment platforms. The aim is not to manipulate variables but to capture real-world behavior and perceptions.

Sampling Technique

To collect data, a **non-probability sampling** method, specifically **convenience sampling**, was employed. This method was chosen because it allows for easy access to a diverse group of respondents who use online gold investment platforms. **Convenience sampling** involves selecting individuals who are readily available and willing to participate in the study. The sample for this research consisted of **125 respondents**, including individuals from different **age groups**, **income levels**, and **occupations**. Although this sample is not randomly selected, it is representative of the general population of **online gold investors** who use platforms such as **Paytm**, **PhonePe**, and **Google Pay**.While convenience sampling is practical and cost-effective, it may introduce some bias, as the sample may not fully represent the entire population of online gold investors. However, the sample size is large enough to provide meaningful insights into the overall satisfaction levels of the users.

Data Collection Method

The study uses both **primary** and **secondary data**:

Primary Data: Data was collected through **structured questionnaires** administered to 125 respondents who actively use online gold investment platforms. The questionnaire contained both **closed-ended** and **open-ended questions** that gathered information on:

- o Demographic details (age, income, occupation)
- o Satisfaction levels (with platform security, usability, transparency, etc.)
- o Factors influencing satisfaction (ease of use, security, customer support)

Respondents were selected through **convenience sampling** from different regions, primarily focusing on individuals who have experience with **digital gold investments**.

Secondary Data: In addition to the primary data, secondary data was gathered from existing literature, **industry reports**, and **research papers** related to online gold investments. This helped in understanding the **current trends** in the market and gave context to the study.

The data collection process was conducted online and via in-person surveys (where appropriate). Respondents were assured of the confidentiality of their responses, and informed consent was obtained before they participated in the study.

Statistical Tools

To analyze the data, several **statistical tools** were used to examine the relationships between **demographic factors** and **customer satisfaction**. The data was processed using **SPSS** (Statistical Package for the Social Sciences) software, which is a popular tool for data analysis in social sciences research. The specific statistical tools used are:

- **Descriptive Statistics**: These were used to summarize the demographic data and satisfaction scores. It includes frequency distribution, means, and percentages.
- **ANOVA (Analysis of Variance)**: ANOVA was used to compare the **mean satisfaction scores** across different demographic groups (e.g., age groups, income groups). The goal was to determine if there are significant differences in satisfaction levels based on age, income, or occupation.

Hypothesis:
- **H$_0$**: There is no significant difference in customer satisfaction based on age/income/occupation.
- **H$_1$**: There is a significant difference in customer satisfaction based on age/income/occupation.

Chi-square Test: This test was applied to assess the **relationship between categorical variables**, such as **occupation** and **satisfaction levels**. It helps to determine whether the distribution of satisfaction across different groups (such as students, salaried employees, or business owners) is statistically significant.

Correlation Analysis: Correlation tests were used to measure the strength and direction of relationships between **customer satisfaction** and key independent variables such as **ease of use**, **security**, and **trust** in the platforms.

By using these statistical methods, the study aims to test the relationships between demographic factors and customer satisfaction and draw valid conclusions regarding user preferences.

Demographic Profile of Respondents

First, let's look at the demographic details of the respondents. These characteristics are important for understanding how different groups view online gold investment platforms.

Table 1
Age Distribution of Respondents

Age Group (Years)	No. of Respondents	Percentage
Below 25	30	24%
25–35	45	36%
36–45	28	22%
Above 45	22	18%
Total	**125**	**100%**

Interpretation:
- The largest age group is **25–35 years** (36%), which represents a tech-savvy demographic that is more likely to engage with digital investment platforms.
- The **Below 25** age group constitutes 24%, showing a relatively strong interest in online gold among younger users.
- The **Above 45** group has the smallest representation (18%), indicating that older generations may be more hesitant or less familiar with digital gold platforms.

Table 2
Income Distribution of Respondents

Income Range (₹)	No. of Respondents	Percentage
Below 20,000	32	25.6%
20,001–40,000	40	32%
40,001–60,000	31	24.8%
Above 60,000	22	17.6%
Total	**125**	**100%**

Interpretation:
- The **middle-income group** (₹20,001–₹40,000) forms the largest category (32%), indicating that online gold investment is appealing to individuals who are financially secure enough to invest but not yet part of the high-income bracket.
- **Lower-income** groups (Below ₹20,000) make up **25.6%**, suggesting that digital gold is an accessible investment option even for those with relatively low incomes.

- The **Above ₹60,000** category represents the smallest group (17.6%), suggesting that high-income individuals may have other preferred investment options or might be more cautious about digital gold platforms.

Table 3
Occupation Distribution of Respondents

Occupation	No. of Respondents	Percentage
Student	35	28%
Salaried Employee	48	38.4%
Business Owner	26	20.8%
Professional	16	12.8%
Total	**125**	**100%**

Interpretation:
- The largest group is **Salaried Employees** (38.4%), reflecting the stable income and financial planning tendencies of people in salaried positions, which likely makes them more inclined to use digital platforms for small investments.
- **Students** make up **28%**, which suggests that online gold is appealing even to young, early-stage investors.
- **Business owners** (20.8%) and **professionals** (12.8%) represent smaller portions of the sample, indicating that they may have alternative investment strategies beyond digital gold.

3.5. Analysis of Customer Satisfaction

Now, we will present the findings related to customer satisfaction with online gold platforms, focusing on several key factors: **Security**, **Ease of Use**, **Trust**, **Pricing Transparency**, and **Customer Support**.

Table 4
Satisfaction Levels by Age Group

Age Group (Years)	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Below 25	12 (40%)	13 (43.3%)	4 (13.3%)	1 (3.3%)	0 (0%)
25–35	22 (48.9%)	16 (35.6%)	5 (11.1%)	2 (4.4%)	0 (0%)
36–45	14 (50%)	10 (35.7%)	3 (10.7%)	1 (3.6%)	0 (0%)
Above 45	6 (27.3%)	10 (45.5%)	5 (22.7%)	1 (4.5%)	0 (0%)

Interpretation:
- Younger respondents (Below 25) report higher levels of satisfaction, with 40% being **very satisfied** and 43.3% being **satisfied**.
- The **25–35 age group** has a similarly high satisfaction rate (48.9% very satisfied).
- Older respondents (Above 45) report lower satisfaction levels, with only **27.3%** of them being **very satisfied**. This may be due to **security concerns** or **technological barriers**.

Table 5
Satisfaction by Income Range

Income Range (₹)	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Below 20,000	5 (15.6%)	10 (31.3%)	12 (37.5%)	4 (12.5%)	1 (3.1%)
20,001–40,000	18 (45%)	17 (42.5%)	4 (10%)	1 (2.5%)	0 (0%)
40,001–60,000	12 (38.7%)	14 (45.2%)	4 (12.9%)	1 (3.2%)	0 (0%)
Above 60,000	7 (31.8%)	9 (40.9%)	4 (18.2%)	2 (9.1%)	0 (0%)

Interpretation:
- **Middle-income** groups (₹20,001–₹40,000) report the highest satisfaction, with **45% very satisfied** and **42.5% satisfied**.

- Respondents in the **Below ₹20,000** income group report the lowest satisfaction, likely due to concerns about **transaction fees** or **investment amounts**.

3.6. Statistical Analysis of Customer Satisfaction

ANOVA Test: Age vs. Satisfaction

Hypothesis:

- **H₀**: There is no significant difference in satisfaction across different age groups.
- **H₁**: There is a significant difference in satisfaction across different age groups.

Source of Variation	Sum of Squares	df	Mean Square	F Value	Sig. (p-value)
Between Groups	5.520	3	1.840	4.652	0.004
Within Groups	47.460	121	0.392		
Total	**52.980**	**124**			

Interpretation:

- Since **p-value (0.004) < 0.05**, we **reject the null hypothesis** and conclude that **age significantly influences satisfaction**.

Chi-Square Test: Occupation vs. Satisfaction

Particulars	Value
Chi-Square Value	15.624
Degrees of Freedom	4
Asymp. Sig. (p-value)	0.004

Interpretation:

- Since **p-value (0.004) < 0.05**, we **reject the null hypothesis** and conclude that **occupation** significantly influences satisfaction.

FINDINGS OF THE STUDY

1. **Age and Satisfaction**:
   - **Younger respondents** (ages **25–35**) reported higher satisfaction levels, with **48.9%** of them being **very satisfied**. This group is more tech-savvy and comfortable with online platforms, leading to higher ease of use and satisfaction.
   - **Older respondents** (ages **45 and above**) expressed lower satisfaction levels, primarily due to concerns about **security** and the **complexity** of digital gold platforms. Only **27.3%** of older users were **very satisfied** with the platforms.

2. **Income and Satisfaction**:
   - **Middle-income groups** (₹20,001–₹40,000) showed the highest satisfaction, with **45%** being **very satisfied**. These users can make **regular investments** and find the platform's features accessible and useful.
   - **Lower-income groups** (Below ₹20,000) had lower satisfaction, potentially due to **higher transaction fees** or **small investment amounts**, leading to less engagement with the platform.

3. **Occupation and Satisfaction**:
   - **Salaried employees** had the highest satisfaction (38.4%), likely due to their stable financial situation, which allows for more frequent investments in gold. They valued the convenience of investing in digital gold.
   - **Business owners** and **professionals** had relatively lower satisfaction scores, possibly due to **higher expectations** regarding investment features or concerns about platform security.

4. **Factors Influencing Satisfaction**:
   - **Security** was identified as the most crucial factor influencing customer satisfaction. Users who felt confident that their investments were **secure** reported significantly higher satisfaction.

- **Ease of use** was another major factor. Respondents who found the platform easy to navigate (especially younger users) were generally more satisfied.
- **Pricing transparency** also played a key role. Platforms that clearly communicated **transaction fees**, **gold purity**, and **other charges** led to higher trust and satisfaction.

5. **Statistical Analysis**:
   - **ANOVA Test**: The analysis showed that **age** had a significant effect on customer satisfaction (p-value = 0.004), with younger customers expressing more satisfaction than older ones.
   - **Chi-square Test**: Both **income** (p-value = 0.004) and **occupation** (p-value = 0.004) were found to significantly influence satisfaction levels. Middle-income groups and salaried employees showed higher levels of satisfaction compared to other income groups or occupations.

6. **Platform Trust and Perception**:
   - **Trust** in the platform's security features, such as encryption and **two-factor authentication (2FA)**, was directly related to **overall satisfaction**. Platforms that offered **transparent pricing** and **clear communication** about fees were more likely to earn the trust of their users.

SUGGESTIONS

To enhance customer satisfaction with online gold investment platforms, it's important to address several key aspects. First, improving security features by integrating two-factor authentication (2FA) and encryption will help build customer trust, particularly for older users who may have concerns about the safety of their investments. Additionally, platforms should simplify the user experience, ensuring the interface is intuitive and easy to navigate, which would appeal to both younger and less tech-savvy users. Clear pricing transparency is also crucial, as it helps customers understand any transaction fees, gold purity, or additional costs, thereby improving trust and satisfaction. Customer support should be accessible around the clock with live chat and quick response times to provide timely assistance. Finally, platforms should consider customizing their offerings for different customer demographics, offering affordable investment options for younger users and premium features for higher-income groups to ensure that the platform meets the specific needs of all users.

CONCLUSION

In conclusion, this study highlights the critical factors that influence customer satisfaction with online gold investment platforms, emphasizing the importance of security, ease of use, pricing transparency, and customer support. The findings demonstrate that factors such as age, income, and occupation play a significant role in shaping user satisfaction, with younger, tech-savvy individuals and middle-income users showing the highest levels of satisfaction. To enhance customer satisfaction, platforms must prioritize secure transactions, provide intuitive interfaces, ensure clear communication about fees, and offer reliable customer service. Tailoring offerings to different demographic groups, such as affordable investment options for younger users and premium features for higher-income investors, can further improve engagement. Ultimately, by focusing on these key areas, online gold investment platforms can increase customer trust, drive user loyalty, and achieve long-term success in a competitive market. The study's results provide a valuable foundation for future research into emerging technologies and the evolving needs of digital investors.

SCOPE OF FUTURE STUDY

- **Long-Term Customer Loyalty**: Investigate how initial satisfaction leads to long-term loyalty and repeat investments.
- **Blockchain Integration**: Explore the impact of blockchain technology on security and transparency in online gold investments.

- **Cultural Influences**: Study how geographic and cultural differences affect customer satisfaction and platform preferences.
- **Psychological Factors**: Examine the role of risk perception, trust, and behavioural factors in influencing investment decisions and satisfaction.
- **Comparison with Other Investment Options**: Compare digital gold investment with other forms of digital investment (stocks, cryptocurrencies) to identify unique customer preferences.

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A STUDY ON THE RISE OF ARTIFICIAL INTELLIGENCE IN DIGITAL MARKETING IN SIVAGANGAI DISTRICT

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ABSTRACT

Artificial Intelligence (AI) has emerged as one of the most transformative technologies in the field of digital marketing. Businesses across the world are increasingly adopting AI-based tools to enhance customer engagement, personalize marketing strategies, and improve decision-making efficiency. In India, particularly in semi-urban and rural districts like Sivagangai, the adoption of Artificial Intelligence in digital marketing is gaining momentum due to increased internet penetration, smartphone usage, and the growth of small and medium enterprises (SMEs). This study aims to examine the rise of Artificial Intelligence in digital marketing practices in Sivagangai District and to analyze its impact on business performance, customer relationship management, and marketing efficiency. The research focuses on understanding the awareness level of AI tools among digital marketers and business owners, identifying commonly used AI applications, and evaluating the benefits and challenges associated with AI adoption. Primary data were collected through a structured questionnaire administered to digital marketers, business owners, and marketing professionals in Sivagangai District. Secondary data were sourced from journals, books, websites, and previous research studies. Statistical tools such as percentage analysis and Chi-square tests were used for data analysis and interpretation. The study reveals that Artificial Intelligence has significantly improved marketing accuracy, customer targeting, and return on investment in digital marketing activities. However, challenges such as lack of technical knowledge, high implementation costs, and data privacy concerns still limit widespread adoption. The findings of this study will help marketers, policymakers, and entrepreneurs understand the scope and future potential of AI-driven digital marketing in regional markets like Sivagangai District.

KEYWORDS: Artificial Intelligence, Digital Marketing, Machine Learning, Customer Engagement, Sivagangai District, Automation, Data Analytics.

INTRODUCTION

The digital revolution has drastically transformed the way businesses communicate with consumers. Traditional marketing methods such as print advertisements, banners, and television commercials have gradually been replaced by digital marketing platforms including

social media, search engines, email marketing, and mobile applications. In recent years, the integration of Artificial Intelligence (AI) into digital marketing has further revolutionized this domain by enabling smarter, faster, and more personalized marketing strategies. Artificial Intelligence refers to the simulation of human intelligence in machines that are programmed to think, learn, and make decisions. AI technologies such as machine learning, natural language processing, chatbots, predictive analytics, and recommendation systems are widely used in digital marketing to analyze consumer behavior, automate marketing tasks, and enhance customer experience.

In India, digital marketing has witnessed rapid growth due to the expansion of internet connectivity and digital literacy. Districts like Sivagangai, though traditionally known for agriculture and small-scale industries, are now experiencing a digital transformation. Local businesses, retailers, service providers, and startups are increasingly using social media platforms, e-commerce websites, and AI-enabled marketing tools to reach wider audiences. The rise of Artificial Intelligence in digital marketing has created new opportunities for businesses in Sivagangai District to compete with larger firms by using data-driven strategies. AI enables businesses to understand customer preferences, predict future buying behavior, and deliver personalized content at the right time. Despite its advantages, the adoption of AI in digital marketing also poses challenges such as lack of skilled manpower, data security concerns, and resistance to technological change. This study explores the extent to which Artificial Intelligence is being adopted in digital marketing practices in Sivagangai District and examines its impact on business performance and customer satisfaction.

SCOPE OF THE STUDY

The scope of the present study is limited to analyzing the rise and application of Artificial Intelligence in digital marketing activities within Sivagangai District. The study focuses on small, medium, and large businesses that are actively engaged in digital marketing practices. The research covers various AI tools used in digital marketing such as chatbots, customer analytics, social media automation, email marketing personalization, and targeted advertising. It also examines the level of awareness, adoption, benefits, and challenges faced by marketers in implementing AI-based solutions. The study provides insights into how Artificial Intelligence influences marketing efficiency, customer engagement, and decision-making processes. It is useful for business owners, marketing professionals, students, and researchers who are interested in understanding the role of AI in regional digital marketing environments.

REVIEW OF LITERATURE

Kaplan and Haenlein (2019) studied the role of Artificial Intelligence in marketing and concluded that AI significantly enhances customer interaction and personalization. The study emphasized that AI tools help marketers analyze large volumes of data to make informed decisions and predict consumer behavior accurately.

Davenport et al. (2020) examined the adoption of AI in digital marketing strategies and found that businesses using AI experienced improved customer retention and higher conversion rates. The study highlighted that AI-driven analytics play a crucial role in understanding customer needs.

Chaffey (2021) analyzed digital marketing trends and observed that AI has become a core component of marketing automation. The study noted that chatbots and AI-based recommendation systems have transformed customer service and online shopping experiences.

Kumar and Sharma (2022) conducted a study on AI adoption among Indian SMEs and found that although awareness of AI is increasing, actual implementation remains limited due to cost and skill constraints. The study suggested training programs to enhance AI adoption in rural and semi-urban areas.

Patel (2023) explored the impact of Artificial Intelligence on social media marketing in India. The research concluded that AI tools improve content optimization, audience targeting, and campaign performance, especially for small businesses with limited marketing budgets.

OBJECTIVES OF THE STUDY

1. To study the concept and importance of Artificial Intelligence in digital marketing.
2. To analyze the level of awareness of AI tools among digital marketers in Sivagangai District.
3. To identify the commonly used AI applications in digital marketing.
4. To evaluate the impact of AI on business performance and customer engagement.
5. To examine the challenges faced in adopting Artificial Intelligence in digital marketing.

SIGNIFICANCE OF THE STUDY

Artificial Intelligence has become a key driver of innovation in digital marketing, and understanding its impact is essential for businesses operating in emerging markets like Sivagangai District. This study is significant as it highlights how AI helps businesses improve marketing efficiency, reduce operational costs, and enhance customer satisfaction. The study also provides valuable insights for marketers and entrepreneurs by identifying the benefits of AI-based digital marketing tools. It helps businesses understand how data-driven decision-making can improve targeting accuracy and campaign effectiveness. Furthermore, the research contributes to academic literature by focusing on a regional perspective. It serves as a reference for future studies on AI adoption in digital marketing within rural and semi-urban contexts.

STATEMENT OF THE PROBLEM

Digital marketing has become essential for business growth, but many businesses in Sivagangai District still rely on traditional marketing methods. The rapid rise of Artificial Intelligence presents both opportunities and challenges for these businesses. While AI-based digital marketing tools offer advanced capabilities such as automation, personalization, and predictive analytics, many marketers lack adequate knowledge and technical skills to implement them effectively. This knowledge gap limits the potential benefits of AI adoption. Additionally, concerns related to cost, data privacy, and technological complexity create resistance among small business owners. Therefore, there is a need to study the rise of Artificial Intelligence in digital marketing and understand the factors influencing its adoption in Sivagangai District.

RESEARCH METHODOLOGY

Research Design

The research design adopted for this study is descriptive in nature. Both primary and secondary data were used. Convenience sampling method was used to collect the data of 120 respondents. The tools used for analysis are Percentage analysis and Chi-square test.

Data Collection

Primary Data collected through structured questionnaires distributed to digital marketers, business owners, and marketing professionals in Sivagangai District. Secondary data collected from journals, books, research articles, websites, and reports.

DATA ANALYSIS AND INTERPRETATION

Percentage Analysis

Table - 1
Awareness of AI in Digital Marketing

Awareness Level	Respondents	Percentage
High	48	40%
Moderate	52	43%
Low	20	17%
Total	**120**	**100%**

Interpretation: The majority of respondents (83%) have moderate to high awareness of AI in digital marketing, indicating growing knowledge in Sivagangai District.

Table - 2
AI Tools Commonly Used

AI Tool	Respondents	Percentage
Chatbots	36	30%
Customer Analytics	34	28%
Email Automation	28	23%
Ad Targeting	22	19%

Interpretation: Chatbots and customer analytics are the most commonly used AI tools, reflecting a focus on customer interaction and data analysis.

Table - 3
Impact of AI on Business Performance

Impact Level	Respondents	Percentage
High	50	42%
Moderate	46	38%
Low	24	20%

Interpretation: A majority of respondents believe that AI has a high to moderate positive impact on business performance.

Table - 4
Challenges in AI Adoption

Challenge	Respondents	Percentage
Lack of Skills	40	33%
High Cost	36	30%
Data Privacy Concerns	28	23%
Technical Complexity	16	14%

Interpretation: Lack of technical skills and high implementation costs are the major challenges in adopting AI.

Chi-Square Analysis

Table - 5
Relationship between Awareness and AI Usage

Category	Observed	Expected
High	48	40
Medium	52	50
Low	20	30

Calculated χ^2 value > Table value

Interpretation: Since the calculated value is greater than the table value, there is a significant relationship between awareness level and usage of AI in digital marketing.

Null hypothesis

There is no significant relationship between the level of awareness of Artificial Intelligence and its usage in digital marketing.

FINDINGS

The study reveals that awareness of Artificial Intelligence in digital marketing is relatively high among businesses in Sivagangai District. A large number of respondents are familiar with AI-based digital marketing practices such as targeted advertising, personalized content delivery, automated customer interaction, and data-driven decision-making. This growing awareness can be attributed to increased usage of social media platforms, e-commerce websites, and digital payment systems, along with exposure to online training programs and digital marketing campaigns.

The findings further indicate that chatbots are the most widely used AI tool among businesses in the district. Chatbots are commonly deployed on websites and social media platforms to handle customer queries, provide product information, and support sales and service activities. Their popularity is mainly due to their ability to offer instant responses, operate round the clock, reduce customer service costs, and enhance customer satisfaction, making them especially suitable for small and medium-sized enterprises.

The study also highlights that the adoption of AI significantly improves customer engagement and marketing efficiency. AI-driven tools enable businesses to analyze customer behavior, preferences, and purchase patterns, leading to more personalized and targeted marketing efforts. Automation of marketing activities such as email campaigns, social media advertising, and customer follow-ups reduces manual workload, saves time, and improves accuracy, thereby enhancing the overall effectiveness of marketing operations.

However, the study identifies that small businesses face considerable skill-related challenges in adopting AI technologies. Many business owners lack sufficient technical knowledge and expertise to implement advanced AI tools effectively. Limited access to trained professionals, inadequate training opportunities, and financial constraints further hinder the full-scale adoption of AI in digital marketing, resulting in partial or basic usage of AI applications.

Finally, the study finds that AI adoption has a positive influence on overall business performance. Businesses that have implemented AI tools report improvements in sales growth, customer retention, brand visibility, and marketing decision-making. AI enables better analysis of market trends and customer data, helping businesses optimize marketing strategies and achieve a competitive advantage. Overall, the integration of AI in digital marketing contributes to enhanced efficiency, profitability, and long-term business growth.

SUGGESTION

Based on the findings of the study, several suggestions are proposed to improve the effective adoption of Artificial Intelligence in digital marketing. First, regular AI training programs and workshops should be conducted for marketers and business owners to enhance their technical knowledge and practical skills. Government intervention is essential in promoting AI adoption, and therefore, financial support in the form of subsidies, tax benefits, or low-interest loans should be provided, especially to small and medium-sized enterprises. Businesses themselves should invest in continuous skill development by encouraging employees to participate in certification courses and hands-on training programs. Awareness campaigns highlighting the benefits and practical applications of AI in digital marketing should be promoted through seminars, webinars, and digital platforms to increase acceptance and confidence among businesses. At the same time, strict data privacy and security measures must be ensured to protect customer information and build trust in AI systems. Collaboration between businesses and technology firms should be encouraged to gain access to advanced tools, technical expertise, and customized AI solutions. It is also advisable for organizations to adopt AI tools gradually, beginning with basic applications and expanding as experience and confidence grow. Finally, regular monitoring and evaluation of AI performance should be undertaken to ensure effectiveness, cost efficiency, and alignment with business objectives

CONCLUSION

Artificial Intelligence has emerged as a transformative force in digital marketing practices in Sivagangai District. The study concludes that AI significantly enhances marketing efficiency, customer engagement, and overall business performance. Despite existing challenges, adequate training, awareness initiatives, and supportive government policies can encourage wider adoption and sustainable digital marketing growth.

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EMPLOYEE SATISFACTION SURVEY AT SHRIRAM HOUSING FINANCE LIMITED – A CASE STUDY IN TRICHY

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ABSTRACT

Job Satisfaction of employees has always been critical factor for success of any organization or a business segment. This has always been of interest for employers as well as market researchers to understand the trends and factors of employee satisfaction in different market segments.

KEYWORDS: Organization, Job Satisfaction, Employees Opinion.

INTRODUCTION

Job Satisfaction is an attitude which results from balancing and summation of many specific likes and dislikes experienced in connection with the job-their evaluation may rest success or failure in the achievement of personal objective and upon perceived combination towards these ends. Job satisfaction in regards to one's feeling or state of mind regarding nature of their work. A job can be influenced by a environment work, etc. Positive attitude towards job are equivalent to job satisfaction where a negative attitude towards job has been defined variously from time to time.

SCOPE OF THE STUDY

The development of any of the organization is mainly depending on the satisfaction level of the employees, so that they can perform well in the organization. The company can analyze the level of employee's satisfaction in the organization. The company can improve the working conditions, environment and other policies to satisfy the employees.

REVIEW OF LITERATURE

Vedika Sharma, (2024)[1], This research says the Retention strategies with special Reference to job satisfaction (A Case Study of IT Sector in Bangalore). Human resources and workforces are the source of revenue for types of organizations. Even if, today's world is the era of automation and every company is nowa days, totally working on science and technology but still large number of man power is required to operate and control these technologies. With the huge competition and overall development in the global market, there are lots of possibilities, Opportunities and options in the basket of the workforce. Apart from all the advantages of the human resource, the major challenge for an organization is not only to

manage these resources but also to retain them. This chapter is distributed into three divisions. First division discusses the concept of employee retention in detail such as; meaning, definitions, strategies and need of employee retention in IT industry in India. Second section discusses the concept of job satisfaction, which includes meaning and definitions of job satisfaction methodology, major factors involved in job satisfaction and the theories of job satisfaction. Third section discusses the brief profile of the companies surveyed during the current study namely; SAP, Oracle, Huawei, Cognizant and Infosys.

Anjuahuja (2024)[2], This research says the Job Satisfaction Among Bank Employees (A Study of Banking Sector Employees with Special Reference to Hadoti Region). The Reserve Bank of India is India 's central banking institution, which controls the monitory policy of the Indian rupee. It was established on April1, 1935 in accordance with the provisions of the Reserve Bank of India Act, 1934. The Central Office of the Reserve Bank was initially established in Calcutta but was permanently moved to Mumbai in 1937. The Central Office is where the Governor sits and where policies are formulated. Though originally privately owned, since nationalizationin1949, the Reserve Bank is fully owned by the Government of India. Its central office is at Shaheed Bhagat Singh Road, Mumbai. the year 1949. The general superintendence and direction of the Bank is entrusted to Central Board of Directorsof20members, the Governor and four Deputy Governors, one Government official on the tenure of Finance, ten nominated Directors by the Government to give representation to important elements in the economic life of the country, and four nominated Directors by the Central Government to represent the four local Boards with the headquarters at Mumbai, Kolkata, Chennai and New Delhi. Local Boards consist of five members each Central Government appointed for a term of four years to represent territorial and economic interest and the interests of co-operative and indigenous banks.

Dimple Chawla, (2023)[3], This research says An Empirical Study on Comparative Analysis of Public and Private Housing Finance Companies in India. Housing being one of the essential requirements of humanity, the demand for sanctum grows in line with the increase in population and the standard of living. Hence the need the purchase a House came up. Housing is a habitual problem both for developed and developing countries but in varying degrees and confines. The problem of housing has been exacerbated by the increase in population, failure of land areas, twisting land prices, low- income situations and low rate of addition to the Housing stock, inadequate conservation and the fast pace of urbanization. With the emergence of National Housing Bankin 1987, the systematized Housing finance industry has been dominated by the technical Housing Finance Institutions regulated by NHB, and the role of marketable Banks, Cooperative Banks, and Agricultural and Rural Development Banks come secondary.

OBJECTIVE OF THE STUDY
- To identify the factors contributing to the job satisfaction of employees working in Shriram Housing Finance Limited.
- To analyse the level of job satisfaction among the respondents, working in Shriram Housing Finance Limited.
- To analyze the safety measures in the organization.

SIGNIFICANT OF THE STUDY

Work pleasure is an necessity in every workplace. More experienced employees are said to be more satisfied with their work than the junior ones. According to Levy, job evaluation is important for every work era sit enables one to choose the job that most satisfies him. Employers should determine of the quality of work each worker does. This will help the employer to know how to motivate them to work even harder or better. Rewarding workers when they do something good can make them contented with the organization. Employee's salary may be increased as a show of appreciation. He may also be given money as incentives.

LIMITATION OF THE STUDY

There are more chances for the employees to answer sometimes with bias. Respondents may fail to express their opinion and beliefs. The attitude of the employees may change from time to time. Hence the results of the project may be applicable only at present.

RESEARCH METHODOLOGY

Primary Data

A well-structured questionnaire has been used for the collection of primary data from the respondents (Shriram Housing Finance Limited employees).

Secondary Data

The Secondary data was collected from company records, various magazines journals and websites.

Table No. 1
Respondents based on their Age

Age	No. of Respondents	Percentage (%)
Below20	1	1
21-30	57	71
31-40	18	23
Above50	4	5
Total	**80**	**100**

Sources: Primary Data

Interpretation

Asperthetableshowsthat,71%of the respondents are between the age group of 21-30 23%of the respondents are between the age group of 31-40,5%of the respondents are between the age group of Above 50, 1% of the respondents are between the age group of Below 20.

Table No. 2
Respondents based on their involvement In the Company's decision-making

Particulars	No. of Respondents	Percentage (%)
Highly Satisfied	39	49
Satisfied	29	36
Neutral	10	13
Dissatisfied	1	1
Highly Dissatisfied	1	1
Total	**80**	**100**

Sources: Primary Data INTERPRETATION

As per the table shows that, 49% of the respondents are Highly Satisfied with the involvement in company's decision making, 36% of the respondents are Satisfied with the involvement in company's decision making, 13% of the respondents are Neutral with the involvement in company's decision making, 1% of the respondents are Dissatisfied with the involvementincompany'sdecisionmaking,1%of the respondents are Highly Dissatisfied with the involvement in company's decision making.

Table No. 3
Respondents' view about the incentives in their organization

Particulars	No. of Respondents	Percentage (%)
Highly Satisfied	26	33
Satisfied	27	34
Neutral	17	21
Dissatisfied	6	7
Highly Dissatisfied	4	5
Total	**80**	**100**

Sources: Primary Data INTERPRETATION

As per the table shows that, 34% of the respondents are Satisfied with the incentives in their organization, 33% of the respondents are Highly Satisfied with the incentives in their organization,21%oftherespondentsareNeutralwiththeincentives intheirorganization,7%of the respondents are Dissatisfied with the incentives in their organization, 5% of the respondents are Highly Dissatisfied with the incentives in their organization.

Table No. 4 Chi-Square

Relationship between gender and incentives are given in the Organization

NULLHYPOTHESIS

There is no significant relationship between gender and incentives are without partially given in the organization.

GENDER	INCENTIVES WITHOUT PARTIALLY GIVEN IN THE ORGANIZATION					TOTAL
	HIGHLY SATISFACTION	SATISFACTION	NETRUAL	DISSATISFACTION	HIGHLY DISSATISFACTION	
MALE	18	20	12	4	1	55
FEMALE	8	7	5	2	3	25
TOTAL	**26**	**27**	**17**	**6**	**4**	**80**

X^2=2.889, Degrees of Freedom (df)=4, p-value=0.039 (Significant at a 5%level)

From the above table, it is evident that there is a significant relationship between gender and incentives are without partially given in the organization. Since the p-value (0.039) is less than 0.05, the null hypothesis is accepted.

The null hypothesis is accepted, indicating that there is a significant relationship between gender and incentives are without partially given in the organization.

FINDINGS

- Table No.1 shows that, majority 71% of the respondents, are between the age group of 21-30,
- Table No.2 shows that, majority 49% of the respondents, are Highly Satisfied with the involvement in company's decision making
- Table No. 3 shows that, majority 34%of the respondents, are Satisfied with the incentives in their organization,
- Table No. 4 shows that, there is no significant relationship between gender and the incentive level of respondents. Because p>0.05. Therefore, the null hypothesis is accepted,

SUGGESTIONS

As employees are dissatisfied with the following factors, the management may have to improve these factors:

- **Improving Work–Life Balance**

Shriram Housing Finance Limited should prioritize policies and practices that

encourage a better work-life balance for its employees. Implementing flexible working hours, promoting remote work options, and encoring regular breaks could lead to higher job satisfaction. Providing employees with personal time off for mental health or family needs can further enhance their overall job satisfaction.

- **Recognition and Reward Programs**
  Employees often feel more motivated and valued when their efforts are recognized. The organization can introduce employee recognition programs such as "Employee of the Month" or performance-based incentives. This would not only encourage better performance but also create a more positive and productive work environment.

- **Training and Development**
  Continuous learning is key to job satisfaction. Shriram Housing Finance Limited can offer skill development programs, leadership training, and workshops. By investing in the professional growth of employees, the company can enhance their confidence and commitment, fostering a sense of achievement and long-term job satisfaction.

- **Promoting Career Advancement**
  Clear pathways for career progression are crucial for employee motivation. The company should introduce structured career development plans that allow employees to see their growth potential within the organization.

CONCLUSION

The study on Job Satisfaction at Shriram Housing Finance Limited reveals that while the company has a strong organizational framework and beneficial policies in place, there are still several areas that can be improved to enhance employee satisfaction and retention. Addressing concerns related to work-life balance, career growth, recognition, communication, and employee well-being can significantly improve the overall work environment. By implementing these suggestions. Shriram Housing Finance Limited can not only boost job satisfaction but also improve employee performance, reduce turnover, and foster a positive organizational culture. Job satisfaction is a continuous process that requires regular feedback, flexibility, and commitment to making necessary adjustments. With the right strategies in place, Shriram Housing Finance Limited can ensure that its employees remain motivated, engaged, and loyal to the company, thereby driving its success in the long run.

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A SYSTEMATIC LITERATURE REVIEW OF QUALITY OF WORK LIFE: CONCEPTS, CONSTRUCTS, AND FUTURE RESEARCH DIRECTIONS

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ABSTRACT

This literature review aims to conduct a systematic review in order to identify the concepts and constructs of Quality of Work Life (QWL), to understand current research gaps, and to identify future research directions. Following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) recommendations, 41 research articles from the Scopus database were analyzed. The study identifies traditional and emerging dimensions of QWL, including control, economics, ergonomics, complexity, social support, and work-life balance. Findings establish relationships between QWL and variables such as transformational leadership, while highlighting a lack of research regarding the impact of QWL on job performance and longevity.

KEYWORDS: Quality of Work Life, Constructs, PRISMA framework.

INTRODUCTION

The concept of Quality of Work Life (QWL) emerged in the late 1960s, shifting organizational focus toward the human aspect of work and the relationship between employees and their environment. QWL represents the degree to which an organization contributes to the material and psychological well-being of its members.

Quality of work life means total quality of an employee's work life in an organization. It covers a person's feeling about every dimensions of his work that is economic incentives and rewards, job security, working conditions, organizational and interpersonal relationships etc. It refers to the favourableness or unfavourableness of the job environment of an organization for its employees (Gupta Shashi K, Joshy Rosy, 2002). It covers a person's feelings about every dimensions of his work, example; economic incentives and rewards, job security, working conditions, organizational and interpersonal relationships etc. Quality of work life is the degree to which work in an organization contributes to material and psychological well being of its members (Harrison, 1985).

Historically, Walton (1973) laid the foundation for QWL by proposing eight categories: fair compensation, safe working conditions, use of capacities, growth and security, social integration, constitutionalism, work-life space, and social relevance. Modern interpretations

view QWL as a philosophy that enhances employee effectiveness by prioritizing psychological well-being and organizational involvement.

METHODOLOGY

This study utilized a systematic literature review (SLR) approach based on the **PRISMA** protocol to ensure transparency and replicability.
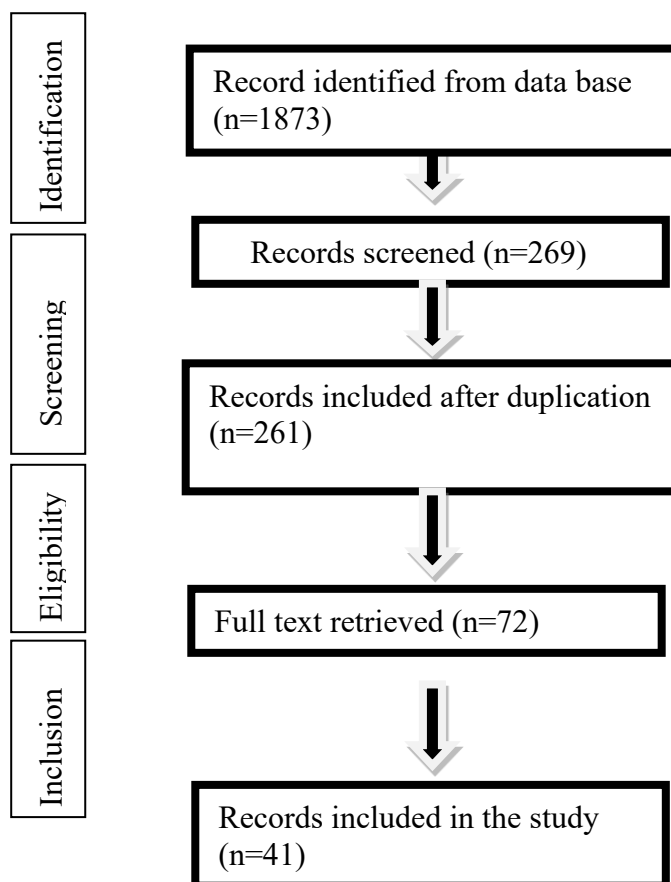
Fig 1- Review procedure based on PRISMA protocol

Identification and Screening

Articles published between 2020 and 2024 were sourced from the **Scopus database**. Initial search terms included "quality of work life" and "work-related quality of life," yielding 1,873 records.

Selection Criteria

- **Inclusion:** English-language journal articles in business, management, and social sciences with existing citations.
- **Exclusion:** Conference proceedings, non-English papers, and publications without citations.

After screening for relevance and removing duplicates, the final selection comprised 41 research articles.

Table 1
Number of articles identified

Year	Number of articles identified
2020	374

2021	433
2022	449
2023	447
2024	134
Grand Total	**1837**

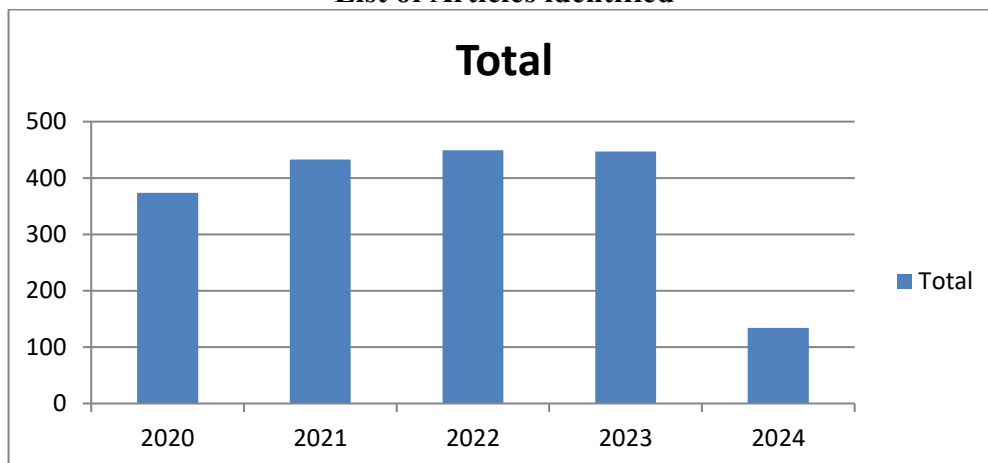**List of Articles identified**

Figure 2: List of articles identified

RESULTS AND INTERPRETATIONS

This section presents the main results of the literature reviews. All the papers were reviewed to identify the concepts and constructs of quality of work life, and to understand the research gaps and future research directions in the field of employee's quality of work life.

Constructs of Quality of Work Life

The review identified several critical factors affecting QWL:

- Core Variables: Job satisfaction, stress at work, career growth, and work-life balance.
- Organizational Factors: Work environment, compensation/rewards, job security, and grievance handling.
- Emerging Dimensions: Recent studies have added "control," "complexity," and "ergonomics" to the QWL framework.

Relationship with Other Constructs

QWL is found to have complex relationships with various organizational outcomes:

- **Positive Correlations:** Organizational commitment, employee loyalty, and transformational leadership.
- Negative Correlations: Job stress, burnout, and turnover intentions.
- Mediating Factors: Job satisfaction often acts as a mediator between QWL and organizational commitment.

INTEGRATED SUMMARY OF FINDINGS

Theoretical Perspectives

The literature draws on diverse theoretical frameworks to explain QWL, most notably:

- Walton's QWL Model (Foundational)
- Maslow's Hierarchy of Needs and Herzberg's Two-Factor Theory
- Spillover Theory (explaining the link between work and home life)
- Conservation of Resources (COR) Theory

Contextual and Methodological Coverage

Research is globally distributed but heavily concentrated in **India (14 studies)**, followed by the UK, Iran, and Indonesia. Most studies (quantitative) utilize cross-sectional surveys and statistical techniques such as Structural Equation Modeling **(SEM)** and Factor Analysis.

FUTURE RESEARCH DIRECTIONS

Analysis reveals that many researchers have overlooked the long-term effects of QWL on:

- **Job Longevity:** How QWL influences an employee's decision to stay in a profession long-term.
- **Emotional Dissonance:** The impact of "surface acting" at work on overall life satisfaction.
- **Career Stages:** How the perception of QWL changes as an employee moves from entry-level to senior roles.

CONCLUSION

QWL remains a subjective and multifaceted concept influenced by both environmental and psychological factors. Organizations that prioritize autonomy, fair rewards, and work-life balance report higher employee performance and lower turnover. Future research should pivot toward longitudinal studies to understand how QWL impacts job performance and life satisfaction over time.

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A RESEARCH ON CUSTOMERS' UNDERSTANDING OF CROSS-SELLING PRACTICES OF ICICI BANKS IN THRISSUR DISTRICT, KERALA

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ABSTRACT

In the modern era of intense competition, both domestic and foreign markets have become increasingly challenging. As a result, the profit margins of business enterprises operating in the banking sector have declined. In this context, banks are adopting sophisticated tools to attract potential customers by enhancing service quality, which directly adds value to customers. Cross-selling techniques have emerged in the banking sector as an effective strategy to retain existing customers while also attracting new potential customers. The primary objectives of cross-selling are to increase the value of a single sales transaction, enhance customer confidence, and reduce the risk of customers switching to competitors. The present study examines consumers' insights towards the cross-selling practices offered by ICICI Bank in the Thrissur district.

KEY WORD: Cross Selling.

INTRODUCTION

Cross-selling refers to the practice of selling additional financial products or services to existing customers. The intention behind cross-selling is to generate higher revenue for the organization while simultaneously building a large base of satisfied customers. However, empirical evidence suggests that only a few banks have achieved significant success in cross-selling initiatives. While implementing cross-selling strategies, banks must remember that the primary objective is to improve the bottom line. In a broader sense, cross-selling involves offering banking products and services to existing customers by providing them with opportunities to purchase additional offerings that complement their original purchase. The aim of this practice is either to enhance revenue per customer or to strengthen long-term customer relationships. Each bank adopts its own strategy regarding the level of relationship intensity it wishes to maintain with its customers. Successful cross-selling requires banks to understand customer needs thoroughly and to track customer interactions through various channels such

as phone banking, online platforms, and personal interactions. Cross-selling is often viewed as a source of competitive advantage in a dynamic business environment and as a means of creating synergies that justify expansion. In addition to their core banking functions, banks also cross-sell allied products, including those offered by insurance companies and other financial institutions. The Reserve Bank of India has issued guidelines prohibiting banks from adopting aggressive, coercive, or unethical methods to market or sell financial products to their customers.

REVIEW OF LITERATURE

Rekha. K.G (2015) Published an article titled "Cross-selling of financial products- A study based on customers in Kerala". This study aims to identify if trust towards an agent or intermediary increase the risk-taking capacity of the consumer and if it is possible to cross sell financial products which have different risk of return. This study declared that, 86% of the respondents said that savings are important and rest of them intended for savings for future. 60% of the people got information about the financial investments from insurance agents, 30% from friends and relatives and 10% from advertisements. 86% of the low-income people are not willing to take market risk attached with making investments in mutual funds. It is not the lack of trust on the agencies and unstable of market.

Nakul Parameswar. et .al.(2017) Published an article titled " Banking on Innovation, Innovation in Banking at ICICI bank". This study focused on to absorb the innovative strategy adopted by ICICI bank. The presidency position of ICICI bank ringing to spread splendorous services to middle class and businesses with low cost with large volume and that are not offered by foreign banks

S.N. Mahapatra & Praveen Kumar (2017) evaluated "Customer retention: A study on Indian Banks". The main objective of this study is to examine the various factors constituting customer retention and find out the most important factors affecting customer retention in Indian banking. Out of this usage of modern technology, personal attention, operational accuracy, prompt service delivery etc having predominant places

Sapna Kumari and P. Shalini (2018) Conducted a study on "Cross selling in banking industry in India". The aim of the study is to identifying the relationship between trust, fulfilment, commitment, image conflicts, convenience towards customer retention and cross selling intention. The main findings of this descriptive research is that, all elements mentioned above have a significant relationship between cross buying intention. The author explored areas such as trust, fulfilment, commitment in cross selling and their importance for retaining a customer.

Samir Mansuri .et.al, (2021) Published an article titled" a study on customer satisfaction for digital banking services of Indian banks". This study aimed to determine the customer awareness of digital baking and level of satisfaction of customer by suing digital banking". The findings of study established that, there is a strong relationship between consumer and digital banking. The main factors which persuade people to use online banking are comfort & convenience and the facility which attracts them mostly quality and quantity of information.

OBJECTIVES OF THE STUDY

1. To identify cross selling practices offered by ICICI bank at Thrissur District, Kerala
2. To analyse the awareness level of customer about the cross-selling products offered by ICICI bank.
3. To evaluate whether the cross-selling services offered by the bank meets the expectancy level of customers.

RESEARCH METHODOLOGY

Descriptive research design is used to conduct the study. For analysis, 100 samples are selected based on purposive sampling method. Primary and secondary sources are used for

collecting the data. A well-structured questionnaire is used for data collection. For this study, Simple percentage analysis is used. Tables are used for the presentation of data analysis.

Cross Selling Practices of ICICI Bank

Industrial Credit and investment Corporation of India (ICICI) bank is a second largest and leading bank of Private sector in India. It was established by the Industrial Credit and Investment Corporation of India (ICICI) on 5th January 1994. ICICI Bank Limited is an Indian financial services company with its registered office in Vadodara, Gujarat, and Apex corporate office in Mumbai, Maharashtra. ICICI bank offers wide range of products and services such as online money transfers, tracking services, Automated lockers, credit cards, debit cards, digital wallets, mutual fund, life insurance, health insurance, car insurance, Fastag etc.

ICICI Credit Card: The provision of making payment for a valuable article in affordable instalments in the fundamental merit of using a credit card. An ICICI credit card provides the amenity of cash, convenience and a range of attractions anywhere in the earth. . Different types of credit card offered by ICICI bank are,

- Platinum Card
- Co-branded Card
- Classic Card
- Affinity Card
- Picture Card
- Corporate Card
- EMI Card
- Preferred Card
- Value for Money Card

With the introduction on credit card facility has brought about a prominent benchmark in the field of purchases. The ICICI Credit Card has only taken this facility to the next level much to the convenience of its millions of users worldwide.

ICICI Tracking Services: ICICI provides online tracking services to the customers on the basis of account number. Customers can track their status of the deliverables dispatched in the past 90 days, cheque clearance status etc.

ICICI Mobile Banking: ICICI bank provides facility for online banking named i-mobile. ICICI Online Banking facilitates clients to shaping financial interactions fluently at the comfort of their home or working place With the help of this, Fund Transfer, balance checking , catch the online tickets, Making speedy Payments, Opening FD/RD Account etc.

ICICI Automated Locker Facility: The Smart Vault is empowered by revolutionary robotic technology that reduces human intercede while functioning the locker. The advanced Radio Frequency Identification (RFID) empower mechanism scans your query and recapture your locker using robotic arm from our robust and assured vault.

ICICI Digital Wallets: ICICI bank has introduced digital wallets with the introduction and essential surge in the adoption of e- commerce as a platform for business. Keying in long credentials at payment gateways in a monotonous operation. Automation by these wallets has inarguably enhanced the volume of clearance The availability of a complete market place and the privilege to take a pick from a variety of online traders and vendors is refreshing indeed.

ICICI Mutual Fund: ICICI Prudential Mutual fund is the third biggest mutual fund house by asset size in India. ICICI prudential mutual fund is a collaborative venture between ICICI banks and high track record and reliable name in financial services in India and prudential Plc, one of the UK's largest players in the financial service sector. ICICI prudential mutual fund offers approximately 220 schemes to investors. It provides 126 debt schemes, 43 equity schemes, 24 ETFs and ,27 hybrid schemes and 24 ETFs.

ICICI Life Insurance: ICICI prudential life Insurance company is a life insurance company in India. Established as a joint venture between ICICI bank and Prudential Corporation holdings limited, ICICI prudential life is functioned in life insurance and asset management business.

ICICI Health Insurance: ICICI bank also provided health insurance to their customers. Arogya Sanjeevani Policy, ICICI Lombard complete health insurance etc are the variants.

ICICI FASTag: ICICI FASTag that operates on the Radio Frequency Identification (RFID) technology permits to pass through the toll without spending time to make the payment at toll. It automatically deduct the amount from FASTag Wallet

ICICI NRI Services: ICICI provides the following services to the NRI's

> Money Transfer
> Bank Transfer
> Investments
> Home Loans
> Insurance
> Loans against FD

ICICI Demat Services: Following are the NRI services allowed by the ICICI bank.

> ISIN query
> Holding
> Transaction History
> Submitting Delivery instructions
> Request for Instruction Booklet
> Information about redemption

Table 1
Showing the Occupation of Customers

Response	Number of Respondents	Percentage
Government Employees	10	10%
Private Employees	45	45%
Agriculture	10	10%
Business man	20	20%
NRIs	15	15%
Total	**100**	**100 %**

Source: Primary data
Interpretation

Data collected from 100 ICICI customers in Thrissur District, Kerala. Out of which 45% of the respondents are belonging to private sector employees, 20% from Businessman,15% belongs to NRI's and 10% each from government employees and Agriculture

Table 2
Showing types of Account held by the of Customers

Response	Number of respondents	Percentage
Saving Bank Account	50	50%
Fixed Account	15	15%
Current Account	20	20%
Recurring Deposit Account	5	5%
NRI Account	10	10%
Total	**100**	**100 %**

Source: Primary data
Interpretation

50% of the total respondents are having Savings Bank account and 20% of them maintained current account and 15% of the respondents are belongs to fixed deposits. 10% of the respondents having NRI Account and only 5% of the customers opened Recurring Deposit account in ICICI bank.

Table 3
Showing opinion regarding the statement
"Bank offers Adequate Cross Selling Services to Customers".

Responses	Number of respondents	Percentage
Strongly Agree	40	40%
Agree	20	20%
Neutral	25	25%
Strongly Disagree	5	5%
Disagree	10	10%
Total	**100**	**100 %**

Source: Primary data
Interpretation

40% of the total respondents strongly agree that, ICICI bank provides adequate cross selling facility to their customers. 25% of them are stands with neutral position and 20% of them are agree with this statement. 10% of the responded customers disagree with the statement and rest of 5% are belongs strongly disagree with the statement.

Table 4
Showing Cross Selling Services mostly used by the Customers

Responses	Number of Respondents	Percentage
Card Facility	31	31%
Mobile Banking	20	20%
Tracking Services	4	4%
Automated Locker Facility	2	2%
Digital Wallets	10	10%
Mutual Funds	4	4%
Insurance Services	10	10%
NRI Services	10	10%
Fastag	5	5%
Demat Services	4	4%
Total	**100**	**100%**

Source: Primary data
Interpretation

31% of the respondents are highly used ICICI cards and 20% of them used Mobile banking as first most cross selling facility provided by the bank. Digital wallets, Insurance services and NRI facility etc are highly used by 10% each of the respondents. 5% of respondents using FAStag as first most cross selling product. Tracking services, Mutual funds and Demat services are used as first most cross selling by 4% each respondent. 2% of the total respondents using automated locker facility provided by ICICI as a first most used cross selling service.

Table 5
Showing opinion regarding the statement "cross selling services offered by the bank meets the expectancy level of customers"

Response	Number of respondents	Percentage
Excellent	40	40%
Good	25	25%

Average	25	25%
Poor	10	10%
Total	**100**	**100%**

Source: Primary data

Interpretation

40% of the respondents thought that their expectancy level reached as excellent regarding ICICI bank by providing cross selling service. 25% of the respondents declared that they have enjoyed good and another 25% revealed average expectancy level. Only 10% of the total verdicts as poor regarding expectancy level.

Table 6

Showing Customers Suggestions for Improving Cross Selling

Responses	Number of respondents	Percentage
Cost reduction	30	30%
Fast grievance redressal system	20	20%
Security	30	30%
Introducing user friendly apps	10	10%
Faster service	10	10%
Total	**100**	**100%**

Source: Primary data

Interpretation

30 respondents are suggesting that, Bank must concentrate on cost reduction and another 30% suggests high security for improving the service quality and capturing high customer base. 20% of the respondents believed that, speedy grievances redressal system surely enhances the improving the quality of cross selling. 10% of them believed that, user friendly Apps is needed for improving cross selling and rest of 10% believe that faster service will increase the cross-selling services offered by ICICI bank.

FINDINGS

- Found that, ICICI bank provides variety of cross selling services offered to their potential customers like card facility, digital wallets, mobile banking, tracking services, mutual funds, insurance services, NRI services, Fastag, Demat services etc.
- 40% of the respondents stated that, the bank offers adequate cross-selling facilities to customers
- 31% of the respondents using card facility offered by the ICICI bank more
- 40% of the respondents met their expected level of services from the ICICI bank on account of Cross selling.
- 30% of the respondents suggests that reducing cost of service and increasing security will attracts more customers to cross selling.

CONCLUSION

For cross-selling practices in banks to increase meaningfully, both the internal framework and manpower need to be effectively restructured, especially in a highly penetrated banking sector. From the present study, it is concluded that ICICI Bank, as a leading and versatile financial organization, offers a wide range of bundled financial products, value-added services, and mind-positioned products to its potential customers. The study reveals that 40% of the customers stated that the bank provides adequate cross-selling services, while another 40% of the total respondents expressed satisfaction by meeting their expected level of services from the bank. This indicates that although ICICI Bank has established a strong cross-selling

mechanism, there remains scope for further improvement to enhance customer satisfaction and expand cross-selling effectiveness.

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THE ROLE OF RETAIL TECHNOLOGY AND START-UPS IN NATION BUILDING: INNOVATION FOR VIKSIT BHARAT 2047

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ABSTRACT

India's goal of achieving developed nation status under the vision of Viksit Bharat 2047 is closely associated with the transformation of retail markets through technology and start-up innovation. This study analyses the role of retail technology and start-ups in supporting nation building by enhancing economic growth, employment generation, productivity improvement, and rural market integration. The paper examines the expansion of digital commerce, retail automation, fintech solutions, and innovation-driven business models that are reshaping India's retail ecosystem. Using a descriptive research approach based on secondary data, the study highlights how retail start-ups contribute to efficient logistics, digital marketplaces, payment systems, and integrated supply chains, thereby strengthening industrial and commercial activities. The findings suggest that retail technology promotes inclusive growth, entrepreneurship, skill development, and industrial competitiveness. The study concludes that sustained policy support, infrastructure development, and innovation ecosystems will be crucial for leveraging retail technology as a key driver in achieving the objectives of Viksit Bharat 2047.

KEYWORDS: Viksit Bharat 2047; Retail Technology; Start-ups; Digital Commerce; Nation Building; Innovation; MSMEs; Financial Inclusion.

INTRODUCTION

The Indian retail sector has undergone significant structural change in recent years due to the rapid adoption of digital technologies and the emergence of technology-driven start-ups. Innovations such as automated billing systems, artificial intelligence-based analytics, cloud inventory management, mobile commerce, and online delivery platforms have transformed traditional retail practices. At the same time, policy initiatives including Start-up India, Digital India, and Make in India have encouraged entrepreneurship and accelerated digital transformation across industries.

These developments align closely with the vision of Viksit Bharat 2047, which seeks to build a technologically advanced, economically resilient, and globally competitive India by the centenary year of independence. Retail start-ups are playing a vital role by introducing innovative business models, formalising markets, enhancing transparency, and integrating rural and informal sellers into organised supply chains. As the retail sector shifts from fragmented,

unorganised systems to digitally connected networks, productivity and consumer access continue to improve. Hence, examining the role of retail technology and start-ups is essential to understand their contribution to national development and long-term economic transformation.

OBJECTIVES OF THE STUDY

1. To analyse how retail technology supports industrial and economic development in India.
2. To evaluate the role of retail start-ups in job creation, productivity growth and rural integration.
3. To explore the contribution of retail innovation towards Viksit Bharat 2047.
4. To identify challenges in adopting retail technology in India.

REVIEW OF LITERATURE

Retail technology and start-up innovation have been widely recognised as critical drivers of economic transformation in India. **Jayalakshmi (2024)** examined the rapid expansion of e-retail and observed that the integration of digital tools, mobile commerce, and online marketplaces has significantly transformed traditional retail structures. The study highlighted that technology adoption enhances customer convenience, builds consumer trust, and expands market reach, thereby contributing to national economic development and retail modernisation.

Singh (2023) analysed the growth of e-commerce in India and emphasised that digital platforms have reduced entry barriers for MSMEs and start-ups. The study found that online retailing has created substantial employment opportunities and improved access to goods and services for consumers. Singh concluded that e-commerce growth supports broader national development objectives by encouraging entrepreneurship and widening market participation.

Indu et al. (2023) conducted a comprehensive review of literature on the growth of e-commerce in India and identified internet affordability and increased smartphone penetration as major growth drivers. Their findings suggested that technology-based retail models strengthen consumer markets, improve productivity, and contribute positively to India's overall economic performance.

Kaur and Verma (2025) explored the role of start-up ecosystems in achieving the vision of Viksit Bharat 2047. Their study highlighted that start-ups promote innovation, technology diffusion, and financial inclusion. The authors argued that a digitally empowered start-up ecosystem is essential for industrial transformation and for India's transition towards developed nation status.

Ahir (2024) reviewed India's entrepreneurial environment under the Viksit Bharat vision and concluded that start-ups are instrumental in building a competitive industrial base. The study emphasised the importance of innovation, skill development, and retail modernisation in supporting long-term economic growth and national development goals.

Samprathi (2025) analysed the growth of online retailing with a focus on consumer trust. The study found that digital infrastructure, secure payment systems, and transparent transactions significantly enhance consumer confidence. The author concluded that retail digitalisation improves logistics efficiency, market transparency, and economic stability.

Gupta and Raghav (2024) examined the impact of AI-enabled retail platforms on MSME growth in India. Their findings revealed that AI-based demand forecasting, automated billing, and data analytics reduce operational costs and improve product accessibility, particularly in rural markets. The study highlighted that technology-driven retail start-ups contribute directly to inclusive economic development, self-reliance, and employment generation—key pillars of Viksit Bharat 2047.

Sharma (2023) investigated blockchain-based retail transparency systems and identified a strong relationship between technology adoption and consumer trust. The study demonstrated that digital traceability reduces fraud, enhances product authenticity, and

promotes fair pricing. Sharma argued that transparent retail systems strengthen formal trade networks, improve tax compliance, and increase investor confidence.

Khan and Joseph (2022) analysed the role of retail start-up incubators in accelerating entrepreneurship across India. Their study found that government-supported initiatives such as Start-up India, Digital India, and Make in India have significantly boosted retail start-ups in Tier-2 and Tier-3 cities. The authors concluded that improved access to mentorship, digital payments, and low-cost marketing platforms increases employment generation and wealth distribution, reinforcing the nation-building process.

Overall, the reviewed literature confirms that retail technology and start-ups play a vital role in economic modernisation, employment creation, MSME empowerment, rural integration, and innovation-led growth. However, existing studies also indicate the need for further research on adoption challenges and long-term policy outcomes, particularly in the context of achieving Viksit Bharat 2047.

STATEMENT OF THE PROBLEM

Despite the rapid growth of digital retail platforms and start-ups, a large segment of India's retail sector remains unorganised and technologically underdeveloped. Many small retailers and MSMEs face barriers such as limited access to digital infrastructure, insufficient capital, lack of technical skills, and uneven connectivity between urban and rural areas. As a result, the adoption of retail technology remains inconsistent across regions.

Moreover, the effectiveness of retail start-ups depends on robust supply chains, data security mechanisms, logistics infrastructure, and regulatory clarity. Without addressing these challenges, the potential of retail technology to contribute to inclusive growth and industrial competitiveness may remain underutilised. Therefore, this study focuses on understanding how retail technology and start-ups can be effectively leveraged to support India's national development goals under Viksit Bharat 2047.

IMPORTANCE OF THE STUDY

The present study is important from economic, industrial, policy, and academic perspectives. First, it establishes a clear link between retail technology, start-ups, and India's national development vision of Viksit Bharat 2047, highlighting how innovation-driven retail systems can support long-term economic growth. Second, the study contributes to understanding how digital retail tools modernise traditional markets, strengthen industrial supply chains, and improve productivity across sectors.

Third, the research highlights the socio-economic impact of retail technology by focusing on employment generation, MSME empowerment, women entrepreneurship, and rural market integration. This is especially relevant in the Indian context, where inclusive growth and regional balance are key development priorities. Fourth, the study holds policy relevance, as it identifies key challenges such as infrastructure gaps, skill shortages, and financial constraints that policymakers must address to ensure successful retail digitisation. Finally, the study adds to existing academic literature by offering a comprehensive and structured analysis of retail innovation as a nation-building tool, making it valuable for researchers, educators, and students.

CONCEPTUAL FRAMEWORK

1. To analyse how retail technology supports industrial and economic development in India

- **Enhancement of Operational Efficiency and Productivity:** Retail technology significantly improves operational efficiency across India's retail and industrial sectors. Tools such as Point-of-Sale (POS) systems, cloud-based inventory management, AI-driven demand forecasting, and automated billing reduce manual errors, minimise wastage, and optimise stock levels. These technologies allow retailers and manufacturers to plan production more accurately, reduce holding costs, and improve turnaround time.

Higher productivity at the retail level directly strengthens industrial output, as manufacturers receive clearer demand signals, leading to more efficient resource utilisation and overall economic growth.

- **Integration of MSMEs into Formal Industrial Systems**: Retail technology plays a crucial role in integrating Micro, Small and Medium Enterprises (MSMEs) into India's formal economy. Digital marketplaces, e-commerce platforms, and mobile-based retail apps enable small manufacturers and sellers to access national and global markets without heavy investment in physical infrastructure. Formal digital transactions through GST-enabled systems improve transparency, tax compliance, and access to institutional finance. This integration strengthens India's industrial base, increases MSME competitiveness, and contributes to stable and sustainable economic development.

- **Strengthening Supply Chains and Industrial Logistics**: Advanced retail technologies improve supply chain efficiency by connecting producers, distributors, warehouses, and retailers on digital platforms. Technologies such as real-time tracking, warehouse automation, blockchain-based traceability, and digital invoicing reduce delays, pilferage, and information gaps. A reliable supply chain lowers logistics costs for industries, improves product availability, and enhances export readiness. Efficient logistics infrastructure is a key pillar of industrial development and supports India's ambition to become a global manufacturing and trading hub.

- **Promotion of Digital Payments and Financial Inclusion**: Retail technology, particularly digital payment systems like UPI, mobile wallets, and QR-based transactions, supports economic development by promoting financial inclusion. Cashless retail transactions bring small traders, rural sellers, and informal workers into the banking ecosystem. This improves access to credit, insurance, and government subsidies. Increased digital financial activity boosts consumption, strengthens monetary circulation, and supports industrial investment, thereby accelerating overall economic growth.

- **Employment Generation and Skill Development**: The adoption of retail technology generates employment across multiple levels of the economy. New job opportunities emerge in logistics, warehouse management, digital marketing, data analytics, fintech services, and platform management. Additionally, retail start-ups encourage skill development in areas such as AI, cloud computing, and digital operations. A skilled workforce enhances industrial competitiveness, supports innovation-driven growth, and aligns with India's long-term economic development goals under Viksit Bharat 2047.

- **Rural Market Expansion and Balanced Regional Development**: Retail technology enables industries to reach rural and semi-urban markets through digital platforms and last-mile delivery solutions. Farmers, artisans, and rural entrepreneurs can directly sell products to consumers, reducing dependency on intermediaries. This expands industrial demand beyond urban centres, supports rural income generation, and reduces regional economic disparities. Balanced regional development strengthens domestic markets and contributes to inclusive national economic growth.

- **Encouragement of Innovation and Industrial Competitiveness:** Retail technology fosters innovation by encouraging data-driven decision-making, customised production, and consumer-centric product design. Start-ups and established firms use analytics to understand consumer preferences, enabling industries to innovate faster and remain competitive globally. Innovation-led retail systems enhance product quality, branding, and value addition, which are essential for industrial expansion and long-term economic sustainability.

- **Contribution to National Economic Vision (Viksit Bharat 2047)**: Overall, retail technology supports India's industrial and economic development by improving

efficiency, formalising markets, strengthening supply chains, generating employment, and encouraging innovation. These outcomes align directly with the vision of Viksit Bharat 2047, which emphasises technology-led growth, industrial modernisation, inclusive prosperity, and global competitiveness. By leveraging retail technology effectively, India can accelerate its transition towards a developed and resilient economy.

2. To evaluate the role of retail start-ups in job creation, productivity growth and rural integration

- **Role of Retail Start-ups in Employment Generation:** Retail start-ups have emerged as significant contributors to job creation in India's growing digital economy. E-commerce platforms, logistics start-ups, delivery services, fintech-enabled retail firms, and inventory management companies generate direct employment in areas such as warehousing, customer support, technology development, marketing, and operations. Indirect employment is also created through gig work, delivery partners, packaging units, and local supplier networks. These opportunities are particularly beneficial for youth, women, and semi-skilled workers, supporting inclusive employment growth aligned with national development goals.

- **Encouragement of Entrepreneurship and Self-Employment:** Retail start-ups promote entrepreneurship by enabling individuals to become sellers, resellers, delivery partners, and digital storefront owners. Platforms such as online marketplaces and social commerce apps reduce entry barriers by providing ready-made technology, payment systems, and logistics support. This encourages self-employment and micro-entrepreneurship across urban and rural regions. By empowering individuals to generate income independently, retail start-ups strengthen economic resilience and contribute to sustainable job creation.

- **Improvement in Productivity Through Technology Adoption:** Retail start-ups significantly enhance productivity by introducing advanced technologies such as AI-based demand forecasting, automated order processing, cloud-based inventory systems, and data analytics. These innovations help retailers and suppliers reduce operational inefficiencies, manage stock more effectively, and minimise delivery delays. Higher productivity leads to faster order fulfilment, reduced costs, and improved customer satisfaction. Increased efficiency at the retail level positively impacts manufacturing and distribution sectors, contributing to overall economic productivity.

- **Support to MSMEs and Small Retailers:** Retail start-ups play a vital role in increasing the productivity of MSMEs and small retailers by integrating them into digital commerce ecosystems. Through access to online marketplaces, digital marketing tools, and real-time sales data, small businesses can optimise pricing, improve product quality, and expand market reach. This technology-driven support enables MSMEs to compete with larger firms, leading to improved output, higher incomes, and long-term business sustainability.

- **Rural Integration and Market Connectivity:** Retail start-ups act as a bridge between rural producers and national markets. Agri-commerce platforms, handicraft marketplaces, and rural logistics start-ups allow farmers, artisans, and small-scale producers to sell products beyond local mandis and village markets. Digital platforms provide price transparency, wider consumer access, and assured payments, which increase rural incomes. Improved rural integration reduces regional disparities and supports balanced economic development.

- **Strengthening Rural Logistics and Last-Mile Delivery:** Many retail start-ups focus on last-mile delivery solutions tailored for rural and semi-urban areas. Innovations such as decentralised warehouses, local delivery hubs, and technology-enabled route planning

improve product availability in remote regions. These logistics networks not only create rural employment but also enhance supply chain efficiency. Strengthened rural logistics facilitate smoother industrial distribution and deeper market penetration for consumer goods and essential services.

- **Digital Financial Inclusion and Rural Productivity:** Retail start-ups leveraging fintech solutions promote digital payments, credit access, and financial literacy in rural markets. UPI-based transactions, digital wallets, and Buy Now Pay Later (BNPL) options reduce dependence on cash and informal credit systems. Access to formal financial tools improves working capital management for rural sellers and retailers, increasing productivity and enabling business expansion.

- **Contribution to Inclusive Growth and Viksit Bharat 2047:** Overall, retail start-ups play a transformative role in job creation, productivity growth, and rural integration. By combining innovation with digital infrastructure, they generate employment, empower MSMEs, and connect rural producers to national value chains. These contributions support inclusive economic growth and align closely with the vision of Viksit Bharat 2047, which emphasises innovation-led development, employment generation, and balanced regional progress.

3. To explore the contribution of retail innovation towards Viksit Bharat 2047

- **Retail Innovation as a Driver of Economic Modernisation**: Retail innovation plays a crucial role in modernising India's economy, which is a core pillar of the Viksit Bharat 2047 vision. Innovations such as digital storefronts, AI-enabled demand forecasting, cloud-based inventory systems, and omnichannel retailing improve efficiency and transparency in trade. These advancements shift India's retail sector from fragmented and informal systems to organised, technology-driven markets. Economic modernisation through retail innovation strengthens industrial output, enhances consumer confidence, and contributes to sustainable long-term growth required for achieving developed nation status by 2047.

- **Promotion of Entrepreneurship and Start-up–Led Growth:** Retail innovation encourages entrepreneurship by enabling start-ups to introduce new business models such as social commerce, quick commerce, direct-to-consumer (D2C) platforms, and hyperlocal delivery networks. These models reduce entry barriers for new entrepreneurs and MSMEs by providing access to digital tools, logistics, and digital payments. Start-up–led retail innovation accelerates innovation diffusion across the economy, supports wealth creation, and aligns with Viksit Bharat 2047's focus on innovation-driven and private-sector–led growth.

- **Employment Generation and Skill Development:** Retail innovation contributes significantly to employment generation by creating new roles in logistics, digital marketing, data analytics, fintech services, warehouse automation, and platform management. Additionally, the adoption of advanced retail technologies promotes skill development in emerging areas such as AI, cloud computing, cybersecurity, and supply chain analytics. A skilled and technologically competent workforce strengthens India's human capital base, which is essential for achieving productivity-led growth and global competitiveness under the Viksit Bharat 2047 framework.

- **Strengthening MSMEs and Inclusive Industrial Growth:** Innovative retail platforms empower MSMEs by connecting them directly to consumers across India and international markets. Through digital marketplaces, MSMEs gain access to marketing tools, real-time consumer data, and efficient logistics networks. This improves productivity, reduces dependence on intermediaries, and increases profitability. Inclusive industrial growth driven by retail innovation ensures that small businesses and traditional

sectors such as handicrafts, textiles, and agro-processing contribute actively to national development, supporting the inclusive prosperity goals of Viksit Bharat 2047.

- **Rural Integration and Reduction of Regional Disparities:** Retail innovation significantly contributes to rural integration by enabling farmers, artisans, and rural entrepreneurs to participate in digital commerce. Innovations such as agri-marketplace platforms, mobile-based selling apps, and rural last-mile delivery networks expand market access and ensure fair pricing. By increasing rural incomes and employment opportunities, retail innovation helps reduce regional disparities and promotes balanced economic development—an essential objective of Viksit Bharat 2047.

- **Financial Inclusion and Transparent Economic Systems:** Digital retail innovations promote financial inclusion by expanding the use of digital payments, formal credit, and online financial services. UPI-based transactions, digital invoicing, and fintech-linked retail platforms increase transparency and tax compliance. A transparent financial ecosystem strengthens government revenue, improves policy planning, and supports macroeconomic stability. These outcomes are critical for building a strong and accountable economic system envisioned under Viksit Bharat 2047.

- **Technological Leadership and Global Competitiveness:** Retail innovation enhances India's global competitiveness by encouraging the adoption of advanced technologies such as AI, blockchain, and data analytics. Innovative retail systems improve product quality, supply chain reliability, and export readiness. As Indian retail and manufacturing firms adopt global best practices, India strengthens its position in international trade and digital services. Technological leadership in retail supports India's ambition to become a globally competitive and innovation-led economy by 2047

- **Alignment with the Vision of Viksit Bharat 2047:** In conclusion, retail innovation contributes to Viksit Bharat 2047 by driving economic modernisation, entrepreneurship, employment, rural inclusion, financial transparency, and global competitiveness. By leveraging retail technology and start-up ecosystems, India can achieve inclusive, resilient, and innovation-led growth. Strengthening retail innovation frameworks will be central to transforming India into a self-reliant, developed nation by the centenary of its independence.

4. To identify challenges in adopting retail technology in India

- **Digital Infrastructure Gaps:** One of the major challenges in adopting retail technology in India is the uneven availability of digital infrastructure. While urban areas enjoy high-speed internet, reliable electricity, and advanced logistics networks, many rural and semi-urban regions still face connectivity issues and power shortages. Poor internet penetration and limited access to digital devices restrict the use of cloud-based systems, online marketplaces, and real-time inventory tools. This digital divide slows the pace of retail technology adoption and limits inclusive economic development.

- **High Cost of Technology Adoption:** The initial cost of adopting retail technologies such as POS systems, AI-driven analytics, warehouse automation, and cybersecurity tools is often high for small retailers and MSMEs. Many traditional retailers operate on thin margins and lack access to affordable credit. The cost of software subscriptions, hardware upgrades, system maintenance, and skilled manpower discourages small businesses from transitioning to digital retail models, resulting in uneven technological progress across the sector.

- **Lack of Digital Literacy and Skills:** Limited digital literacy among small retailers, especially in rural and older business communities, poses a significant challenge. Many retailers lack the technical knowledge required to operate digital billing systems, manage online inventories, analyse sales data, or handle cybersecurity risks. Inadequate training

programs and limited awareness about the benefits of retail technology further reduce adoption rates. Without skill development initiatives, technology-driven retail transformation remains slow and fragmented.

- **Resistance to Change and Trust Issues:** Traditional retailers often resist adopting new technologies due to fear of disruption, uncertainty about returns, and concerns over data security. Many small traders prefer cash transactions and manual record-keeping because of familiarity and perceived control. Lack of trust in digital platforms, online payments, and automated systems creates psychological and cultural barriers to retail innovation, especially in unorganised markets.

- **Cybersecurity and Data Privacy Concerns:** As retail systems become increasingly digital, concerns related to cybersecurity and data privacy have grown. Retailers handling online transactions and customer data face risks of data breaches, fraud, and cyberattacks. Small retailers often lack robust security infrastructure and awareness of data protection practices. Fear of financial loss and legal complications discourages many businesses from fully adopting digital retail technologies.

- **Fragmented Supply Chains and Logistics Challenges:** India's retail sector is supported by highly fragmented supply chains involving multiple intermediaries. Integrating these networks with digital platforms is complex and costly. Inefficiencies in transportation, warehousing, and last-mile delivery—especially in remote areas—limit the effectiveness of technology-driven retail systems. Without reliable logistics support, the benefits of retail technology cannot be fully realised.

- **Regulatory and Compliance Challenges:** Frequent changes in tax regulations, data protection rules, and e-commerce policies create uncertainty for retailers and start-ups. Compliance with GST, consumer protection laws, and digital payment regulations can be complex for small retailers. Lack of clarity and awareness about regulatory requirements increases compliance costs and discourages technology adoption, particularly among MSMEs.

- **Limited Access to Finance and Institutional Support:** Access to finance remains a major hurdle in adopting retail technology. Many small retailers lack collateral, credit history, or formal documentation required to obtain loans. Limited availability of government incentives and delays in implementation further constrain adoption. Without strong financial and institutional support, retail technology diffusion remains slow and uneven.

- **Need for Coordinated Policy and Ecosystem Support:** The absence of integrated policy frameworks that align infrastructure development, skill training, financial support, and technological innovation poses a systemic challenge. Retail technology adoption requires collaboration among government agencies, technology providers, financial institutions, and industry bodies. Lack of coordination reduces the effectiveness of existing initiatives and delays large-scale transformation.

- **Conclusion on Adoption Challenges:** In conclusion, while retail technology has immense potential to transform India's economy, several challenges hinder its widespread adoption. Infrastructure gaps, high costs, skill shortages, trust issues, cybersecurity risks, logistical inefficiencies, and regulatory complexities must be addressed systematically. Overcoming these challenges through targeted policies, capacity building, and ecosystem support is essential for leveraging retail technology in achieving the vision of Viksit Bharat 2047.

LIMITATIONS OF THE STUDY

- The study is based on secondary data; primary surveys were not conducted.
- Retail technology impact varies across regions and industries.

- Start-up policies are evolving; long-term outcomes cannot be predicted precisely.
- Market statistics are subject to rapid technological changes.

RESEARCH METHODOLOGY

Research Design

The study uses a descriptive and qualitative research design, focusing on conceptual analysis.

Data Sources

Only secondary data have been used. Information is collected from:

- Retail industry reports
- Government databases
- Journal articles
- Websites and digital commerce publications
- Newspaper and statistical sources

Approach of Study

Content analysis was applied to interpret data on start-ups, retail automation and nation building.

MAJOR FINDINGS OF THE STUDY

1. Retail technology significantly improves operational efficiency, reduces costs, and enhances productivity across retail and industrial sectors.
2. Digital platforms and retail start-ups play a vital role in integrating MSMEs into formal economic systems through online marketplaces, digital payments, and GST-enabled transactions.
3. Retail start-ups generate large-scale employment, both directly and indirectly, particularly for youth, women, and semi-skilled workers.
4. Technological innovations such as AI, cloud computing, and digital supply chains strengthen logistics networks and improve industrial competitiveness.
5. Retail innovation supports rural integration by connecting farmers, artisans, and rural entrepreneurs to national markets, increasing income levels and reducing regional disparities.
6. Digital payment systems promote financial inclusion, transparency, and tax compliance, strengthening government revenue and economic stability.
7. Retail innovation aligns closely with the objectives of Viksit Bharat 2047 by supporting entrepreneurship, industrial modernisation, inclusive growth, and global competitiveness.
8. Despite its potential, retail technology adoption faces challenges such as infrastructure gaps, high costs, digital illiteracy, cybersecurity risks, regulatory complexity, and limited access to finance.

SUGGESTIONS OF THE STUDY

To maximise the impact of retail technology and start-ups in achieving the vision of Viksit Bharat 2047, a coordinated and inclusive approach is essential. The government should strengthen digital infrastructure in rural and semi-urban areas, provide affordable credit and incentives for technology adoption by small retailers and MSMEs, and expand digital literacy and skill development programs. Simplifying regulatory frameworks, ensuring data security, and promoting trust in digital platforms will encourage wider adoption of retail technologies. At the same time, collaboration among policymakers, start-up incubators, financial institutions, and technology providers is necessary to build a supportive ecosystem that fosters innovation, improves supply chain efficiency, and ensures balanced regional development.

DISCUSSION

Innovations driven by retail technology are transforming India's economic structure. Cloud infrastructure, UPI payments, rural e-commerce delivery, digital invoicing, AI-based

customer analytics, and online retail platforms strengthen commerce efficiency. These structural improvements align with Viksit Bharat 2047 goals: better infrastructure, industrial modernization, export growth, and social equity.

Start-ups are helping agriculture, handicrafts, textiles, and MSMEs sell products beyond local boundaries, expanding income levels. Retail technology also supports GST digital records, enabling better policy planning. With enhanced logistics, warehouse automation, and fintech access, India is building an industrial environment suitable for developed nation status.

CONCLUSION

The study concludes that retail technology and start-ups play a foundational role in India's journey towards Viksit Bharat 2047. Retail innovation promotes national productivity, employment generation, entrepreneurship development, and inclusive growth. Digital retail platforms support small retailers, ensure wider product reach, reduce regional inequalities, and accelerate technology adoption.

By strengthening retail technology ecosystems and start-up support frameworks, India can unlock faster industrial transformation and economic development, helping realise the dream of a self-reliant, globally competitive and innovation-driven Viksit Bharat by 2047.

SCOPE FOR FURTHER STUDY

Future research can build upon this study by conducting primary surveys and field-based investigations to assess the real-time impact of retail technology adoption on small retailers, MSMEs, and rural entrepreneurs across different regions of India. Detailed case studies of successful retail start-ups and comparative analyses with global retail innovation ecosystems can provide deeper insights into best practices and policy effectiveness. Further studies may also apply quantitative models to measure the contribution of retail technology to employment generation, productivity growth, and GDP, as well as examine the long-term outcomes of evolving government policies in achieving the objectives of Viksit Bharat 2047.

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AN EMPIRICAL STUDY ON MOTIVATIONAL FACTORS AND CHALLENGES FACED BY WOMEN ENTREPRENEURS

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ABSTRACT

Women's entrepreneurship is a vital driver of economic development and social progress. This study examines the multifaceted factors—economic, socio-cultural, and institutional—that influence the development and success of women entrepreneurs. Utilizing a descriptive research design and a sample of 50 respondents through purposive sampling, the research identifies key motivators like independence and financial growth, alongside significant barriers such as gender bias and work-life balance challenges. The findings reveal a significant association between age groups and the impact of cultural norms on entrepreneurial opportunities ($p < 0.05$). The paper concludes with strategic suggestions for fostering a more inclusive entrepreneurial ecosystem.

KEYWORDS: Women Entrepreneurship, Economic Development, Socio-cultural Barriers, Gender Bias, MSMEs.

INTRODUCTION

Entrepreneurship in the Indian context has never been a modern graft; it is an intrinsic spirit that has permeated the socio-economic fabric of the nation for centuries. Historically, however, this spirit was governed by patriarchal lineages, where business acumen and assets were traditionally passed from fathers to sons. This entrenched male dominance, reinforced by rigid societal norms, created a glass ceiling that for generations relegated women's economic contributions to the periphery. In the contemporary global economy, recognizing women's entrepreneurship is no longer a matter of social equity alone but a fundamental prerequisite for national economic advancement and holistic prosperity. Women possess a unique set of "soft skills" and "hard competencies"—specifically exceptional multitasking abilities—that allow them to balance complex work-life dynamics while maintaining stringent fiscal discipline. Their journey from the private domestic sphere to the public economic sphere is marked by a transition from traditional roles, such as educators or homemakers, to innovative workforce supervisors and corporate leaders. The Historical Transition: Ancient to Modern Period The historical trajectory of Indian women in business reveals a resilient struggle against societal constraints. As early as the mid-eighteenth century, women began asserting economic agency by managing retail shops and small handloom enterprises. The 18th and 19th centuries marked a significant turning point where women increasingly established home-based businesses in

pottery, bangle crafting, and textiles to supplement family incomes. This era coincided with a pivotal shift in female education, laying the intellectual groundwork for future professional endeavours. The 20th century, particularly the post-liberalization era of the 1990s, witnessed a meteoric rise in female entrepreneurial activity. Women moved beyond survivalist ventures to identify sophisticated market niches, applying new technical skills and contributing significantly to employment generation. From the ubiquitous neighbourhood grocery stores and Xerox centres to modern independent consultancies and high-tech startups, women have systematically dismantled the barriers of gender inequality. The Contemporary Scenario and Economic Impact Today, women entrepreneurs in India stand on equal footing with their male counterparts, evolving from employees to significant employers. A critical enabler in this modern transition has been the rise of Fintech (Financial Technology). Digital lending platforms and specialized MSME (Micro, Small, and Medium Enterprises) credit facilities have democratized access to capital, providing women with the necessary liquidity to scale their ventures without traditional institutional biases. According to the Global Entrepreneurship Monitor (GEM), there are approximately 73 million active women entrepreneurs across 34 surveyed nations, representing 40% of the total entrepreneurial force. In the current economic climate, entrepreneurship serves as the most reliable barometer of a country's success. Since encouraging women to participate in the market is the fastest way to accelerate national growth.The research questions are what are the key factors influencing the development of women into entrepreneurs? what are the core problems identified during the development of these entrepreneurs?. Hence the research aims to analyze the multifaceted factors—economic, social, and institutional—that influence and determine the success of women entrepreneurs in the modern era.

STATEMENT OF THE PROBLEM

The development of women entrepreneurs is a multifaceted process influenced by a complex interplay of internal and external factors that shape their professional journeys. Despite the significant progress made in this field, substantial challenges remain that hinder women from achieving full participation and sustained success in the competitive business world. Specifically, the following core issues constitute the problem for this study: Limited Access to Critical Resources, Socio-Cultural Barriers and Stereotypes, Work-Life Balance Pressures, Institutional and Educational Gaps and Structural and Policy Inequalities. Furthermore, discriminatory or inadequate government policies may fail to provide an enabling environment for women-led businesses to thrive. Despite the recognized importance of women's entrepreneurship for national economic growth, there remains a critical need to understand the deeper interplay of these factors and their collective impact on a woman's ability to start, sustain, and grow a successful business. Therefore, the research seeks to examine these specific influencing factors and identify the fundamental problems faced by women entrepreneurs in the current business landscape.

SCOPE OF THE STUDY

The research is specifically confined to women entrepreneurship within the manufacturing, trade, and service industries. Motivational factors that drive women to become entrepreneurs. The socio-economic status of these women both before and after commencing their enterprises. An evaluation of entrepreneurialperformance and the specific problems faced by women entrepreneurs in this region.

RESEARCH OBJECTIVE

- To study the demographic profile (Age, Education, Marital Status) of women entrepreneurs.
- To identify the motivational factors that influence women to start their own businesses.
- To analyze the external factors affecting the growth and development of women-led businesses.

- To evaluate the success indicators for women entrepreneurs, ranging from financial growth to social impact.

RESEARCH HYPOTHESIS

- There is no significant relationship between demographic factors (like age or education) and the success of women entrepreneurs.
- External factors such as access to finance and government policies does not significantly impact the development of women entrepreneurs.
- Motivational factors (like self-achievement) does not significantly influence on business start-up than external financial support.

RESEARCH METHODOLOGY

The research methodology for this study is grounded in a Descriptive Research Design, specifically chosen to facilitate an in-depth, fact-finding analysis of the multifaceted factors influencing the development of women entrepreneurs. To execute this, a Sample Size of 50 respondents was determined to provide a reliable quantitative base while ensuring qualitative depth. The researcher adopted a Purposive Sampling Technique, a non-probability method that relies on professional judgment to select "information-rich" subjects who possess the specific business experience and characteristics necessary to address the research objectives. Data collection was conducted through a structured, self-administered questionnaire designed to capture first-hand insights into motivational drivers and systemic obstacles, which were subsequently analyzed using statistical tools such percentage analysis to simplify the demographic profile, weighted mean to interpret the Likert scale responses regarding bias and success. frequency Distribution to identify the most common sectors and motivations.

LIMITATION OF THE STUDY

- The response collected is mostly based on the opinion of the respondents, response are subject to personal basis.
- The perception of the consumer might change over time as it is subjective in nature.

REVIEW OF RELATED LITERATURE

Nimco Salah Guled and Burcin Kaplan (2018) studied the factors Influencing Women Entrepreneurs Business Success in Somalia. The results reveals that the government support, market& network, fund support and market and network factors are significantly impact onwomen entrepreneur in Somalia. Moreover, no significant impact was found for the socio-economic factors on women entrepreneur business success.

Satyajit Roy, Priyanka Tripathy and Tripathy (2017) carried out the study on the assessment of factors affecting the performance of women entrepreneurs in MSE in Polo Sara district of Ganjam, Odisha. The results of the study indicate the personal characteristics of women entrepreneurs in MSEs and their enterprise that affect their performance. It also shows that lack of own premises (land), financial access, intense competition, inadequate access to training, access to technology and access to raw materials were the key economic factors that affect the performance of women entrepreneurs in MSEs.

Geetha and Dr. N Rajani (2017) carried out study on factors motivating women to become entrepreneurs in Chittoor district. The research was conducted on 722 women entrepreneurs of Chittoor district, Andhra Pradesh. The study found the seven factors through factor analysis which motivated women greatly to become entrepreneurs such as, Generation of Income, Economic Independence, Interest, Self-Dependent, Family Encouragement, Social Status and Self Prestige out of sixteen attributes.

Kalyani and Mounika (2016) conducted study on the factors influencing female entrepreneurship. Results show that the reason for starting business are as varied as their background; some out serious economic compulsions, some due to quitting of a job and

accompanied frustration, using their leisure time, converting their past-times into lucrative activities, inspired by a new idea etc

Mohammad Javad Fazeli, Ahmad Reza Omani and TahmasebMaghsoudi (2015) identified affecting factors on entrepreneurship development among rural women in Dechlorane Township, Iran. The obtained results from the factor analysis revealed that the six mentioned factors explained 73.34% of the variation of affecting factors on development of entrepreneurship among rural women.

Mohammad Tamim Mahamud Faissal, Awlad Hosen Sagar and Firoja Akter Khanam (2015) analysed the factors affecting the women entrepreneurship development in SMEs of Bangladesh. The study revealed that six factors affect the women entrepreneurship development in SME based on factor loadings and named as government and administrative factor, financial support factor, strategic management factor, political and legal factor, infrastructural factor and entrepreneurship education factor.

Misael Jalena, Paul Mansingh and Fikadu AbidesErena (2015) conducted study on factor analysis of entrepreneurial motivation of women in micro and small enterprises in Ambo town, Ethiopia. Factor analysis was conducted. Entrepreneurial factor, individual and independent factor, social and professional factor, satisfaction factor and economic factors are the five factors were emerged out from the selected 21 factors.

Nazrul Islam and Rizvi Ahmed (2014) carried out the study on factors influencing the development of women entrepreneurship in Bangladesh. The results show that there are eleven factors concerned with the development of women entrepreneurship in Bangladesh. The factors are: negotiation and bargaining skills, management of sales, self-awareness, long-term involvement in business, and training on business is significantly related to the overall development of women entrepreneurship in Bangladesh.

Sandip Sarkar and Mallika Palit (2014) identified the factors important for women entrepreneur success and also to identify whether there is any relationship between age, marital status, education level and the success factors in Bangladesh. They identified 8 key factors that are critical for women entrepreneur's success. Those are Access to technology, Interpersonal Skill, Business Feature, Training and Motivation, Social security and freedom, Assistance and easy regulation, Family support, quality assurance and Risk encountering.

Krishnamoorthy and Balasubramanian (April 2014), identified the important women entrepreneurial motivation factors and its impact on entrepreneurial success. The study identified ambition, skills and knowledge, family support, market opportunities, independence, government subsidy and satisfaction are the important entrepreneurial motivational factors. The study also concluded that 'ambition", "knowledge and skill', 'independence' dimensions of entrepreneurial motivational has significant impact on entrepreneurial success.

Zhuiqin, Xie ying ying, Zhang Lu and Suresh Kumah (2013)analysed about the facts that influence the success of women entrepreneurs in China. From the results, they get that human capital, women characteristics, and motivation has a significant influence in the success of women entrepreneurs; family background has a less significant influence in the success of women entrepreneurs.

Torch Burch (Nov 18th 2013), experiences that women entrepreneurs see the world through a different lens and. in turn, do things differently. Though the women are operating new businesses, yet they face a huge equality gap. In only seven countries Panama, Thailand, Ghana, Ecuador, Nigeria. Mexico and Uganda women take part in business at rates equal to men's, in some countries, like Pakistan, they rarely take part at all Even when women are active business owners, they do not reach their potential. When it comes to finance, women face particular hurdles, from a lack of collateral to discriminatory regulations and ingrained gender bias. Financial institutions must do a better job of banking on women's potential by thinking creatively and forging partnerships, to give more women a shot at the resources that can enable

them to start up or scale up. Narrowing the gender gap in employment will increase global income per person.

Anita Tripathy Lal's (November 15, 2012) main objective of this research was to study the significant rise of Women Entrepreneurs in India and how it has evolved since the pre-independence days (before 1947). During the British colonial days. The study also analysed the reasons that have prompted the women entrepreneurs to unleash their entrepreneurial energies into start-ups. Based on both qualitative and quantitative analyses the growth of women entrepreneurship in India have been studied into four different periods Pre-Independence Period (before 1947), Post-Independence Period (after 1947), Post-Liberalization Period (after 1991) and Post-Global Recession period (2008 onwards). The study finally concluded to what extent the various support systems in India can further foster a conducive ecosystem for the Women Entrepreneurs in India.

Cohoon, Waxhaw and Mitchell (2010) presented a detailed exploration of men & women entrepreneur's motivations, background and experiences. This study identified top five financial and psychological factors motivating women to become entrepreneurs. These are desire to build the wealth, the wish to capitalize own business ideas they had, the appeal of start-up culture, a long standing desire to own their own company and working with someone else did not appeal them. The study concluded that the women are very much concerned about protecting intellectual capital than their counterpart. Mentoring is very important to women, which provides encouragement & financial support of business partners, experiences & well developed professional network.

Sudha Menon (2010) in this inspirational book follows the journey of some of India's most admired. Women achievers who have made a difference to society with their staller work and other pursuits that touch our lives, in more ways than once. This book vividly touches upon issues like what makes the woman professional. Achiever, is there a level playing field for women, is there something males can learn from their female colleagues etc. This book is a well-researched effort to evaluate the achievements of leading women professionals.

ANALYSIS AND INTERPRETATION

Demographic profile	Frequency (N=50)	Percentage (%)
Age Group		
30-39 years	22	44%
40-49 years	14	28%
Others	14	28%
Education		
Graduate	25	50%
Post Graduate	12	24%
Others	13	26%
Sector		
Food	18	36%
Beautician	12	24%
Textile / Jewellery	10	20%
Manufacturing	10	20%
Legal Structure		
Sole Proprietorship	35	70%
Partnership	15	30%
Motivation		
Self-Achievement	24	48%
Best Finance Source		
Family	28	56%

Benefit Received		
Financial Support	21	42%

The above profile reveals the typical woman entrepreneur is likely to be between 30-39 years old and a Graduate. A significant majority (70%) prefer Sole Proprietorship, indicating a desire for full control over business decisions. The concentration in the Food and Beautician sectors suggests a preference for service-oriented businesses. The primary driver is Self-Achievement (48%), proving that psychological empowerment is a stronger catalyst than "Profit" alone. Interestingly, while the questionnaire asks about "Banks," Family remains the most accessible source of financial support, highlighting a potential gap in formal banking services for women.

External Factors

External Factors (Challenges)	Mean Score (1-5)
Equal access to financial resources	2.1
Gender bias poses a challenge	4.3
Government policies adequately support	2.5
Equal access to technological tools	3.2

The Mean Score of 4.3 for "Gender Bias" indicates it is the most critical hurdle faced by respondents. The low score for Financial Resources (2.1) confirms that women feel they do not have the same level of access to funding as their male counterparts.

Success Indicators

Success Indicator	Mean Score	Rank
Customer Satisfaction	4.8	I
Financial Growth	4.6	II
Effective Decision-making	4.2	III
Recognition and Awards	2.8	IV

The above table indicate the success of the women entrepreneurs. Entrepreneurs rank Customer Satisfaction (4.8) as the ultimate measure of success, followed closely by Financial Growth. Interestingly, Recognition and Awards are ranked much lower, suggesting that women entrepreneurs prioritize sustainability and client relationships over external validation.

FINDING

1. The typical woman entrepreneur is likely to be between 30–39 years old and holds a graduate degree.
2. A significant majority (70%) operate as sole proprietorships, showing a preference for full control3. Businesses are concentrated in the Food (36%) and Beautician (24%) sectors.
3. The leading driver for starting a business is self-achievement (48%), suggesting that psychological empowerment is a more potent catalyst than profit alone555555.
4. Gender bias was identified as the most significant hurdle with a mean score of 4.36. Additionally, there is a perceived lack of equal access to financial resources (mean score 2.1).
5. Despite the availability of formal banking, family remains the most accessible source of finance for 56% of respondents.
6. Entrepreneurs prioritize customer satisfaction (4.8) and financial growth (4.6) over external validation like recognition and awards.
7. There is a significant association between age groups and the impact of cultural norms on entrepreneurial opportunities ($p < 0.05$).

SUGGESTIONS

1. Strategic efforts are needed to foster a more inclusive entrepreneurial environment that dismantles gender bias.

2. Leveraging Fintech and digital lending platforms can help bridge the gap in access to capital and bypass traditional institutional biases.
3. Banking institutions should think creatively and forge partnerships to better support women's potential and provide the resources needed to scale ventures.
4. Providing women with professional networks and mentoring can offer necessary encouragement and financial support.
5. Government policies should be refined to ensure they provide an enabling environment rather than inadequate or discriminatory frameworks.

CONCLUSION

Women's entrepreneurship has evolved from a struggle against patriarchal constraints to becoming a fundamental driver of national economic advancement. While modern women entrepreneurs in India now stand on equal footing as employers, they continue to navigate a complex interplay of internal motivatorslike self-achievementand external barrierssuch as gender bias and limited resource access. Ultimately, narrowing the gender gap in employment and entrepreneurship is the fastest way to accelerate national growth and increase global income.

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AI-DRIVEN PERSONALIZATION IN E-COMMERCE MARKETING

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ABSTRACT

Artificial Intelligence (AI) has become a transformative force in e-commerce marketing by enabling personalized experiences for consumers. AI-driven personalization uses customer data such as browsing history, purchase behavior, preferences, and demographics to deliver tailored product recommendations, targeted advertisements, dynamic pricing, and customized content. This study aims to analyze the role of AI-driven personalization in enhancing customer satisfaction, engagement, and business performance in e-commerce platforms. The research adopts a descriptive approach using primary and secondary data. The researcher used a chi square test to interpret the data. The findings indicate that AI-based personalization significantly improves customer experience, increases conversion rates, and builds long-term customer loyalty. However, concerns related to data privacy and algorithmic bias remain challenges. The study concludes that AI-driven personalization is essential for competitive advantage in modern e-commerce, provided ethical and transparent practices are followed.

KEYWORDS: Artificial Intelligence, Personalization, E-commerce Marketing, Machine Learning, Customer Experience

INTRODUCTION

The rapid growth of e-commerce has increased competition among online retailers. Consumers now expect personalized shopping experiences rather than generic offerings. Artificial Intelligence plays a vital role in meeting this expectation by analyzing massive volumes of customer data and generating insights in real time.

AI-driven personalization refers to the use of machine learning algorithms, predictive analytics, and data mining techniques to customize marketing content, product suggestions, and communication for individual customers. Leading e-commerce companies such as Amazon, Flipkart, and Alibaba extensively use AI to personalize user experiences.

This study focuses on understanding how AI-driven personalization influences customer behavior and business performance in e-commerce marketing.

IMPORTANCE OF THE STUDY

- Helps businesses improve customer satisfaction and retention

- Enhances marketing effectiveness through targeted campaigns
- Increases conversion rates and sales revenue
- Supports better decision-making using data-driven insights
- Provides an academic understanding of emerging marketing technologies.

REVIEW OF LITERATURE

Smith and Anderson (2020): Smith and Anderson examined the impact of AI-based recommendation systems on consumer purchase behavior in online retail platforms. Their study found that personalized product recommendations significantly increased click-through rates and conversion rates. The authors concluded that AI-driven personalization improves customer engagement by making shopping experiences more relevant and convenient.

Kumar and Sharma (2021): Kumar and Sharma analyzed how personalized marketing messages influence customer satisfaction and brand loyalty. Their findings revealed that AI-enabled personalization leads to higher customer satisfaction, which in turn positively affects repeat purchase intention and brand loyalty.

Li, Wang, and Chen (2022): Li et al. studied machine learning algorithms used for predictive analytics in e-commerce. They found that predictive personalization improves targeting accuracy and marketing efficiency, allowing firms to reduce advertising waste while increasing return on investment.

Gupta (2023): Gupta focused on ethical challenges in AI-driven personalization, especially data privacy and algorithmic bias. The study emphasized that while personalization enhances customer experience, it also raises concerns about misuse of personal data and lack of transparency.

Chen and Liu (2024): Chen and Liu examined consumer trust in AI-based personalization systems. Their study found that transparency and perceived fairness significantly influence consumer acceptance of AI-driven marketing technologies.

STATEMENT OF THE PROBLEM

Despite the benefits of AI-driven personalization, many e-commerce firms face challenges in implementation, data management, customer trust, and privacy concerns. This study seeks to analyze whether AI-driven personalization effectively improves customer satisfaction and business outcomes while addressing these challenges.

OBJECTIVES OF THE STUDY

- To study the concept of AI-driven personalization in e-commerce marketing.
- To examine its impact on customer satisfaction and engagement.
- To analyze the influence on sales and conversion rates.
- To identify challenges in implementing AI personalization.
- To suggest measures for effective adoption.

HYPOTHESES

- **H_0 (Null Hypothesis):** AI-driven personalization has no significant difference between occupation and oftenly shopping through online.
- **H_1 (Alternative Hypothesis):** AI-driven personalization has a significant difference between occupation and oftenly shopping through online.

RESEARCH METHODOLOGY

This study uses a descriptive research design to understand the impact of AI-driven personalization in e-commerce marketing. Both primary and secondary data were used. Primary data and secondary data was collected from 100 online shoppers.Convenient sampling techniques were used. Chi-square test has been applied to know the significance of certain variables at 5% level of significance.

LIMITATIONS OF THE STUDY

- The study is limited to a small sample size of 100 respondents, which may not represent the entire population of online shoppers.
- Time constraints limited the depth of data collection and analysis.
- The study is restricted to users of selected e-commerce platforms and does not cover all online shopping platforms.

ANALYSIS AND INTERPRETATION

Table 1

Gender

Gender	Respondent	Percentage
Male	52	52%
Female	45	45%
Others	3	3%
Total	**100**	**100%**

SOURCE: PRIMARY DATA

The table shows that 52% of the respondents are male, 45% are female and 3% belong to other categories. This indicates that both male and female respondents are almost equally represented in the study, making the sample balanced in terms of gender distribution.

Table 2

Age

Age	Respondent	Percentage
Below 20	12	12%
21 - 30	38	38%
31 – 40	25	25%
41 - 50	15	15%
Above 50	10	10%
Total	**100**	**100%**

SOURCE: PRIMARY DATA

The majority of respondents (38%) belong to the age group of 21–30 years, followed by 31–40 years (25%). This shows that young adults are the most active users of e-commerce platforms and are more exposed to AI-driven personalization.

Table 3

Educational Qualification

Qualification	Respondent	Percentage
Undergraduate	40	40%
Postgraduate	35	35%
Professional	15	15%
Others	**100**	**100%**

SOURCE: PRIMARY DATA

40% of respondents are undergraduates and 35% are postgraduates. This indicates that the majority of online shoppers using AI-based platforms are well educated and capable of understanding and responding to personalized marketing.

Table 4

Occupation

Occupation	Respondent	Percentage
Student	30	30%
Private employee	28	28%
Government employee	15	15%
Business	17	17%
Others	**100**	**100%**

SOURCE: PRIMARY DATA

Students form the largest group (30%), followed by private employees (28%). This suggests that young consumers and working professionals are the main users of AI-driven e-commerce platforms.

Table 5
Frequency Of Online Shopping

Frequency	Respondent	Percentage
Rarely	10	10%
Occasionally	20	20%
Monthly	25	25%
Weekly	30	30%
Frequently	15	15%
Total	**100**	**100%**

SOURCE: PRIMARY DATA

30% of respondents shop online weekly and 25% monthly. This implies that a significant portion of respondents are regular online shoppers, making them suitable for studying the impact of personalization.

Chi Square Test
Observed Frequency

Occupation/frequency	Rarely	Occasionally	Monthly	weekly	Very frequently	Total
Student	3	5	8	10	4	30
Private employee	2	6	7	9	4	28
Government employee	4	5	3	2	1	15
Business	1	3	4	6	3	17
Others	0	1	3	3	3	10
Total	**10**	**20**	**25**	**30**	**15**	**100**

Chi-Square For Comparing the Occupation and Frequency of Online Shopping

	O	E	$(O-E)^2/E$
Student – occasionally	5	6	0.17
Government –rarely	4	1.5	4.17
Government - weekly	2	4.5	1.39
Others – rarely	0	1	1.00
Others – occasionally	1	2	0.50
Others – very frequently	3	1.5	1.50
Business – weekly	6	5.1	0.16
Private – weekly	9	8.4	0.04
			3.91
Total X²			**12.84**

Degree of freedom
=(r – 1)(c – 1)
=(5 – 1)(5 – 1)
=16
Calculated value = 12.84

Degree of freedom = 16
Table valueX² 0.05 = 26.30

The Chi-Square test was conducted to examine whether there is a significant relationship between the occupation of respondents and their frequency of online shopping. The calculated Chi-Square value is 12.84 with 16 degrees of freedom, which is less than the table value of 26.30 at the 5% level of significance. Therefore, the null hypothesis is accepted.

FINDINGS

- Majority of respondents feel personalization improves shopping experience.
- AI recommendations increase convenience and satisfaction.
- Privacy concerns exist among a small section of users.
- Personalized ads influence purchase decisions positively.
- Most customers are comfortable with AI personalization and are willing to use it more in the future.
- Customers who shop online more often are more satisfied with personalized recommendations.

SUGGESTION

- Ensure transparency in data usage policies.
- Strengthen cybersecurity and data protection mechanisms.
- Use ethical AI to avoid bias and manipulation.
- Provide customers control over personalization settings.
- Online platforms should allow users to choose how much personalization they want.
- Companies should regularly check their AI systems to make sure they are fair and accurate.

CONCLUSION

AI-driven personalization has become a critical component of e-commerce marketing. It enhances customer experience, boosts engagement, and increases business profitability. However, its success depends on responsible data usage, ethical AI practices, and maintaining customer trust. Businesses that adopt AI personalization strategically will gain a sustainable competitive advantage.

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CONSUMER BUYING BEHAVIOUR TOWARDS NIVEA BODY CARE PRODUCTS IN TIRUCHIRAPPALLI

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ABSTRACT

The Indian personal care industry has witnessed rapid growth due to increasing skincare awareness, changing lifestyles, and rising consumer expectations. As individuals become more conscious of personal hygiene and appearance, demand for reliable body care products has increased. This study examines consumer buying behaviour toward Nivea body care products in Tiruchirappalli, Tamil Nadu. The findings indicate that brand image, product quality, price, promotional activities, and product availability significantly influence consumers' purchase decisions. Nivea has established a strong market position because of its trusted quality, affordable pricing, and positive brand reputation, which encourage repeat purchases and customer loyalty. Despite this strong presence, the brand faces growing competition from both domestic and international personal care companies offering similar products. To remain competitive and strengthen its market position, the study suggests that Nivea should enhance product visibility, introduce region-specific product variants, and actively engage consumers through digital marketing and social media platforms.

KEY WORDS: Consumer buying behaviour, Personal care industry, Brand image, Product quality, Purchase decision, Nivea body care products.

INTRODUCTION

Growing concern for skincare and grooming has reshaped consumer preferences in recent years. As awareness of hygiene and appearance rises, buyers increasingly seek reliable body care solutions. This study explores consumer purchasing behaviour toward Nivea body care products in Tiruchirappalli, Tamil Nadu. Results highlight that brand trust, product effectiveness, reasonable pricing, promotional influence, and product accessibility play a decisive role in shaping purchase decisions. Through consistent quality and products suited to varied skin needs and weather conditions, Nivea has built a favourable image among consumers. This has contributed to higher satisfaction and repeat purchases. However, the presence of local competitors creates pressure. Sustained success will depend on innovation and visibility strategically.

IMPORTANCE OF THE STUDY

Understanding consumer buying behaviour is important for businesses to succeed in today's competitive personal care market. Since factors like brand trust, product perception, and emotional connection strongly influence purchasing decisions, studying consumer preferences becomes essential. This research focuses on Nivea body care products in Tiruchirappalli, a growing tier-2 city that reflects changing lifestyles and buying patterns in semi-urban India. The study is significant because it provides practical insights into how consumers in Tiruchirappalli view and choose Nivea products. By examining factors such as product quality, price, brand image, and promotional activities, the research helps identify what drives customer decisions at the local level. The findings can assist Nivea and similar brands in improving their marketing strategies, product positioning, and distribution efforts to better satisfy consumer needs. Academically, the study adds value by offering a localized understanding of consumer behaviour in emerging markets, an area that is often less explored in existing research.

SCOPE OF THE STUDY

This study focuses on understanding consumer buying behaviour toward Nivea body care products within Tiruchirappalli, Tamil Nadu. It examines the preferences, opinions, and purchasing habits of consumers from different demographic backgrounds such as age, gender, occupation, and income. The research looks into key factors that influence buying decisions, including product quality, price, brand image, promotional activities, packaging, and product availability. It also considers the impact of digital marketing and word-of-mouth on consumer attitudes toward Nivea products. The scope of the study is limited to Nivea body care products like body lotions, creams, and deodorants, and does not cover other categories such as face care or men's grooming products. The findings are based on survey data collected from consumers in Tiruchirappalli and are specific to this region, which means the results may not apply to other locations without further study.

REVIEW OF LITERATURE

Kaushik and Prakash (2022) in their comparative study on cosmetic and body care products observed that brand trust, product quality, and packaging were key factors affecting consumer choice. Their findings indicated that Nivea was preferred for its affordability and consistent performance, reinforcing the role of brand reliability in purchase decisions.

Rajasekar & Geetha (2022) Consumer Behaviour and Preferences for Skin Care Products in Tiruchirappalli. A deeper look into how consumers in Tiruchirappalli approach skincare, and their satisfaction levels with Nivea.

Thaasifa Fathima et al. (2023) in their study on customer satisfaction towards Nivea in Villupuram Town found that consumers generally viewed Nivea positively due to its product quality and reasonable pricing. However, the study also revealed dissatisfaction among some consumers because of limited product variety, suggesting that expanding product options could improve overall satisfaction.

Singh, R., & Rathi, A. (2023) Consumer Preferences for Skincare Products in Tiruchirappalli: A Case Study of Nivea. Journal of Consumer Studies. This study investigates consumer preferences for Nivea in Tiruchirappalli, emphasizing product quality, pricing, and brand reputation as key drivers of consumer satisfaction.

Ajmal et al. (2024) examined the influence of shopping lifestyle and social media promotion on buying interest for Nivea skincare products and found that digital platforms, particularly TikTok, played a significant role in shaping purchase intentions. The study highlights the growing importance of social media marketing and consumer engagement in influencing buying behaviour.

OBJECTIVE OF THE STUDY

- To investigate and understand the factors influencing consumer buying behaviour in the context of Nivea product– Tiruchirappalli City.
- To explore buying patterns, including frequency of purchase, repeated buying behaviour, and brand loyalty.
- To understand the overall consumer buying behaviour in the cosmetics industry, with a focus on Nivea product.
- To evaluate the importance of product attributes such as quality, affordability, package and eco friendliness, influencing purchase decisions.

RESEARCH METHODOLOGY

Research Design

The study will follow a descriptive research design, which helps in understanding consumer preferences, motivations, and factors influencing their buying behaviour toward Nivea products.

Sample Techniques

The study adopted the convenience sampling method, as respondents were selected based on ease of access and willingness to participate.

Sampling Size

Sampling size refers to the number of individuals or data points selected from a larger population to participate in a study or survey. The sample size for my research is 100 respondents.

Sources Of Data

- **Primary Data –** The primary data was obtained during the course of doing research in a systematic manner with the help of questionnaires.
- **Secondary Data –** Existing data that has been collected, analysed, and published by others for purposes other than the current research study.

Tools For Data Analysis

The collected data were analysed using simple statistical tools, such as:

- **Percentage analysis –** to interpret consumer responses clearly
- **Tabulation –** for systematic presentation of data
- These tools helped in drawing meaningful conclusions about consumer preference towards Nivea products in Tiruchirappalli.

LIMITATIONS OF THE STUDY

- The study was limited to a specific area of Tiruchirappalli city
- There is also time constraint in undertaking this study
- The study might not fully capture broader market or industry-wide consumer behaviour.

FINDINGS

- 66% of the Respondents are female.
- 64% of the respondents belong to the 18–25 age group.
- 42% of the respondents live in urban areas.
- 58% of the respondents are students.
- 30% of the respondents earn below ₹10,000.
- 40% of the respondents know about Nivea products through social media.
- 34% of the respondents are using lip balm among other Nivea products.
- 43% of the respondents purchased Nivea products for quality.
- 49% of the respondents prefer the ₹300–₹600 price range.
- 52% of the respondents prefer UPI as their mode of payment.
- 51% of the respondents prefer e-commerce platforms to purchase Nivea products.

- 42% of the respondents purchasing Nivea products once a month.
- 90% of the respondents follow the Nivea products page on social media.
- 58% of the respondents were influenced by Instagram.
- 55% of the respondents always check the awareness about Nivea products ingredients before purchasing the products.
- 49% of the respondents says the pigmentation and colour payoff are good.
- 52% of the respondents find Nivea products good for their skin type.
- 37% of the respondents prioritize sturdy and protective packaging materials.

SUGGESTIONS

- The company should enhance Social Media Presence: Continue leveraging Instagram and influencers to maintain engagement and drive new customer acquisition.
- Expand Product Line: Introduce more shade ranges, skin-friendly formulations, or innovative products in the ₹300–₹600 range.
- Improve Packaging: Focus on sturdier, eco-friendly, and visually appealing designs to enhance customer satisfaction.
- Strengthen E-commerce & Payment Experience: Optimize UPI payments and improve online shopping convenience to boost conversions.
- Expand Availability & Accessibility: Address supply chain or stock issues to ensure better availability, especially in offline stores.
- Leverage Ingredient Transparency: Promote clean beauty initiatives and clearly communicate product ingredients to attract ingredient-conscious consumers.
- The company should expand offline availability in beauty stores, malls, and pop-up events.
- They may Partner with quick-commerce platforms for faster delivery.
- The company must enhance return/exchange policies for greater trust.
- To Implement AI Chabot's for instant beauty consultation and customer support.
- The company may host community-driven campaigns to engage existing customers and attract new ones.

CONCLUSION

The study shows that Nivea body care products are well accepted by consumers in Tiruchirappalli city. Most consumers prefer Nivea because of its good quality, affordable price, and trusted brand image. Social media and online shopping platforms play an important role in creating awareness and influencing buying decisions, especially among young consumers. Factors such as skin suitability, ingredient awareness, and attractive packaging also affect customer preference. Although competition in the personal care market is increasing, Nivea has a strong position in the local market. By improving product variety, packaging, and availability, the company can further strengthen customer satisfaction and brand loyalty.

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IMPACT OF INSTAGRAM REELS ON STUDENT SPENDING HABITS

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ABSTRACT

The rapid growth of social media has significantly changed the way consumers think, behave, and spend money. Among various platforms, Instagram Reels has emerged as a powerful short - video feature that attracts a large student audience. Reels combine entertainment, visual appeal, trends, and influencer promotions, which subtly shape students' purchasing decisions. This paper aims to study the impact of Instagram Reels on student spending habits, focusing on impulse buying, preference for branded products, and lifestyle-oriented consumption. The study is descriptive in nature and is based on both primary and secondary data. Primary data were collected from students using a structured questionnaire, while secondary data were sourced from journals, articles, and online publications. The researcher used Percentage analysis and simple interpretations were used to analyze the collected data. The analysis indicates that frequent exposure to Instagram Reels encourages unplanned spending and influences students to follow trends beyond their actual needs. The study emphasizes the importance of financial awareness and responsible social media usage among students.

KEYWORDS: Instagram Reels, Consumer Behavior, Student Spending Habits, Social Media Influence, Impulse Buying

INTRODUCTION OF CONSUMER BEHAVIOR

Consumer behavior is the study of how individuals select, purchase, use, and dispose of goods and services to satisfy their needs and desires. It is influenced by psychological, social, cultural, and personal factors. In the modern digital environment, consumer behavior is increasingly shaped by online platforms and social media interactions.

Students represent an important consumer group due to their high engagement with digital media and evolving lifestyle preferences. Social media platforms not only provide communication and entertainment but also act as marketing tools that influence buying behavior. Instagram Reels, through short and visually engaging videos, expose students to continuous promotional content, trends, and influencer lifestyles. As a result, students' consumption decisions are often driven by attraction, emotion, and social approval rather than rational evaluation.

REVIEW OF LITERATURE

Tiggemann (2020): Highlights a modern trend on Instagram characterized by the posting of 'Instagram versus. Reality' photos, show casing side-by-side photographs of the same woman one depicting an idealized version and the other a more genuine portrayal. This study aimed to empirically investigate the effect of such pictures on body image. We randomly allocated 325 women, aged 18 to 30 years, to see one of three categories of Instagram photographs: 'Instagram vs. reality' photos, the 'ideal' side solely, or the 'actual' side alone. As expected, exposure to 'Instagram vs. reality' and genuine pictures resulted in decreased body dissatisfaction relative to idealized images**.**

Umair Manzoor, Sajjad Ahmad Baig, Muhammad Hashim, Abdul Sami, 2020): Conducted a research on the Impact of Social Media Marketing on Consumers Purchase Intentions and concluded that trust and Social Media ads influence the consumer's decisions largely and some of them also buy from Social Media websites. It has also concluded that more than trust, Social Media has a greater influence on purchase intentions**.**

Patel (2020): Studied the influence of social media platforms on consumer decision-making and found that Instagram plays a crucial role in shaping opinions through peer interactions, likes, and comments. This "social proof" effect makes users more likely to trust a product or service endorsed by peers or influencers.

Aparna Sharma (2022): However, the question that arises is whether the youths are in a right frame of mind or are they addicted to this kind of content production, what are the psychological factors for them to use Instagram or other social media platforms.

Saxena and Kaur (2023): Focused on how time spent on Instagram correlates with impulse buying behavior. Their results demonstrated a significant positive relationship between prolonged Instagram usage and spontaneous purchasing, especially when the content involved product unboxings, discount codes, or exclusive offers.

STATEMENT OF THE PROBLEM

In recent years, students' spending patterns have shown noticeable changes due to increased exposure to social media platforms. Instagram Reels frequently promote fashionable products, luxury lifestyles, and instant purchase options. This constant exposure may lead students to spend money impulsively and prioritize wants over needs.

Many students are unaware of how strongly such content influences their spending behavior. Excessive spending can result in financial stress and reduced savings. Therefore, the problem addressed in this study is to examine whether Instagram Reels significantly influence student spending habits and to understand the nature of this influence.

SIGNIFICANCE OF THE STUDY

The study is significant for several reasons. It helps students understand the impact of Instagram Reels on their financial decisions and encourages responsible spending behavior. The findings can assist parents and educators in guiding students toward better money management practices.

From an academic perspective, the study contributes to existing literature on consumer behavior and digital marketing. It also provides insights for marketers to adopt ethical promotional strategies while targeting young consumers. The study serves as a reference for future research related to social media influence and spending behavior.

OBJECTIVES

- To understand which type of reels funny, aesthetic, trendy (or) influencer based make students spend more.
- To check how different age group understand and react to reels based marketing in simple, fun way.
- To identify how influencers on reels build trust and convince students to try new product.

- To analyze how limits time offers and discounts codes shown in reels affect student's impulse buying decisions.
- To examine how awareness of digital marketing strategies impacts students ability to resist impulsive buying influencers by reels.

LIMITATIONS OF THE STUDY

- The study is limited to a small sample size.
- It focuses only on students and does not include other consumer groups.
- The results are based on self-reported data, which may involve personal bias.
- Time constraints limited wider data collection and deeper statistical analysis.

RESEARCH METHODOLOGY

The research methodology outlines the systematic approach adopted for the study.

Nature of the Study: Descriptive research.

Sources of Data: Primary and secondary data.

Primary Data: Collected through a structured questionnaire from students who actively use Instagram Reels.

Secondary Data: Collected from journals, books, research articles, websites, and online reports.

Sampling Technique: Convenience sampling method.

Sample Size: 100 respondents.

Tools for Analysis: Percentage analysis and simple interpretation were used to analyze the collected data.

ANALYSIS AND INTERPRETATION

For meaningful analysis, the data collected from 100 student respondents were classified and presented using tables and percentage analysis. This helps in understanding the influence of Instagram Reels on student spending habits in a clear and systematic manner.

Table 1
Daily Time Spent on Instagram Reels

Time Spent per Day	No. of Respondents	Percentage
Less than 30 minutes	20	20
30 minutes – 1 hour	35	35
1 – 2 hours	30	30
More than 2 hours	15	15
Total	**100**	**100**

Interpretation: The table shows that 65% of the respondents spend more than 30 minutes daily on Instagram Reels, indicating high exposure to promotional and influencer content.

Table 2
Influence of Instagram Reels on Purchase Decisions

Response	No. of Respondents	Percentage
Yes	68	68
No	32	32
Total	**100**	**100**

Interpretation: A majority (68%) of students admitted that Instagram Reels influence their purchase decisions, showing a strong impact on spending behavior.

Table 3
Type of Products Purchased After Watching Reels

Product Category	No. of Respondents	No. of Respondents
Clothing & Fashion	40	40
Beauty & Personal Care	25	25
Gadgets & Accessories	20	20

| Food & Lifestyle Services | 15 | 15 |
| **Total** | **100** | **100** |

Interpretation: The data indicates that fashion and beauty-related products are the most influenced categories due to Instagram Reels.

Table 4
Nature of Buying Behavior Influenced by Reels

Buying Behavior	No. of Respondents	Percentage
Planned Purchase	30	30
Impulse Purchase	70	70
Total	**100**	**100**

Interpretation: The table clearly shows that 70% of students engage in impulse buying after watching Instagram Reels, highlighting the emotional influence of short-video content.

Table 5
Monthly Spending Increase Due to Instagram Reels

Increase in Spending	No. of Respondents	Percentage
Less than ₹500	25	25
₹500 – ₹1000	40	40
₹1000 – ₹2000	22	22
Above ₹2000	13	13
Total	**100**	**100**

Interpretation: The analysis shows that 75% of students experience an increase in monthly spending due to Instagram Reels, which reflects its financial impact on students. The above analysis confirms that Instagram Reels significantly influence students' spending behavior by encouraging impulse purchases and trend-driven consumption.

FINDINGS
- Instagram Reels have a significant influence on students' spending behavior.
- Students are highly attracted to trending and branded products shown in Reels.
- Influencer marketing plays a major role in purchase decisions.
- Frequent exposure to Reels increases impulse buying among students.
- Many students lack awareness of the long-term financial impact of such spending.

SUGGESTIONS
- Students should prepare a personal budget to control unnecessary expenses.
- Educational institutions should introduce basic financial literacy programs.
- Students should critically evaluate promotional content on social media.
- Limiting screen time on Instagram can help reduce impulse purchases.
- Influencers should promote products responsibly and ethically.

CONCLUSION

The study concludes that Instagram Reels play a significant role in shaping student spending habits. Continuous exposure to visually attractive and promotional content encourages impulse buying and lifestyle-oriented consumption. While Instagram Reels offer entertainment and information, they also create strong consumption desires among students.

To avoid financial stress, students must become aware of the influence of social media on their spending decisions. Responsible usage of Instagram, combined with financial awareness, can help students maintain a healthy balance between enjoyment and economic discipline.

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A STUDY ON CONSUMER BRAND PREFERENCE TOWARDS LAPTOPS AMONG STUDENTS IN TIRUCHIRAPPALLI CORPORATION

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ABSTRACT

This study investigates the factors influencing the consumer preferences of students in Trichy Corporation towards laptops. With the increasing dependency on technology for academic purposes, the demand for laptops among students has surged, prompting an exploration into the key elements driving purchasing decisions. The study analyses variables such as price sensitivity, brand preference, specifications, and after-sales service, as well as the role of social influence and peer recommendations. To analyse the relationship between the selected variable statistical tools like chi-square test and correlation were performed on the data using spss22 based on the analysis.

KEYWORDS: Consumer Preference, Laptop, Purchasing Decision.

INTRODUCTION

Laptops have become essential tools for students, particularly in academic environments. With the increasing reliance on online learning, research, and project work, laptops have transcended their role as mere computing devices and have emerged as critical instruments for enhancing student productivity and academic performance. In the context of Trichy Corporation, a city with a growing educational infrastructure, the demand for laptops among students has witnessed a significant surge in recent years. Students' preferences for laptops are shaped by a variety of factors, including technological specifications, pricing, brand reputation, portability, and post-purchase services. As such, understanding the key drivers behind these preferences can provide valuable insights into the evolving consumer behaviour among the student demographic.

Moreover, the vast array of laptop brands and models available in the market further complicates the decision-making process for students, who are often faced with the challenge of balancing performance and cost-effectiveness. The growing importance of laptops in the educational sector in Trichy presents an opportunity to explore the factors that influence students' purchasing decisions. This study aims to investigate the preferences of students in Trichy towards laptops, focusing on various aspects such as pricing, performance, brand perception, and the role of social influences.

Computer evolution process1960s-1970s: Portable Computing Attempts. Xerox Note Taker (1976)., The Birth of the Laptop: 1980sThe First True Laptop: 1985The Present and Future of LaptopsM1/M2 Chips by Apple: Apple's shift to custom-designed ARM-based chips (M1 and M2) in 2020Foldable Laptops and Dual-Screen Designs

REVIEW OF LITERATURE

- T. Porkodi (2018): Conducts a study on consumer preferences towards laptops in Tiruchirappalli District, contributing to the understanding of regional consumer preferences and behaviour. Offers implications for marketers to cater to the specific needs and preferences of consumers in Tiruchirappalli District.
- Dr. K. Vanaja & Anbarasu U. (2020): Investigates consumer preference and satisfaction towards Dell laptops in Coimbatore city, contributing to the understanding of brand perceptions and consumer behaviour in the Coimbatore market.
- Janani (2021): Studies purchase behaviour of laptops among the women segment, offering insights into gender-specific consumer preferences and behaviour in the laptop market. Provides implications for marketers to effectively target and engage female consumers in the laptop market.

OBJECTIVE OF STUDY

1. To Analyse the Factors Influencing Laptop Preferences Among Students
2. To Evaluate the Impact of Social Influence on Laptop Purchase Decision
3. To Assess the Price Sensitivity and Value for Money Among Student

PURPOSE OF STUDY

The purpose of this study is to analyse the consumer preference towards laptops among students within the Trichy Corporation area. The study aims to understand the factors influencing students' choice of laptops, such as brand, price, specifications, durability, and after-sales service. It also seeks to examine students' awareness, usage patterns, and satisfaction levels regarding different laptop brands. Furthermore, the study intends to identify the key reasons behind purchasing decisions and the problems faced by students while using laptops. The findings of this research will help laptop manufacturers, retailers, and marketers to better understand student preferences and design suitable products and marketing strategies to meet their needs.

Questionnaire design:

Sample questionnaire designed to meet the objectives outlined previously. It includes a mix of closed-ended and open-ended questions to provide both quantitative and qualitative insights.

Sample size:

The ideal sample size is approximately 100 students, assuming a confidence level of 95% and a margin of error of 5%. Students in Trichy Corporation enrolled in educational institutions.

Sample method:

The study adopts a **convenience sampling** method to collect data from students residing within the Trichy Corporation area. This method is chosen due to its simplicity, time efficiency, and ease of access to respondent

DATA ANALYSIS AND INTERPRETATION

Gender

Gender	No of responded
Male	40
Female	60
Total	**100**

Interpretation:

40%of the respondents were male, 60%of the respondents were female.

Price of the laptop

Response	No. of response	Percentage of response
Expensive	15	15**%**
Reasonable	85	85%
Total	**100**	**100**

Interpretation:

85%of respondents were having a reasonable price of laptop while 15%of respondents are having expensive laptop.

Hypothesis: (chi – square test)

H0: there is no relationship between gender and money spend on laptop

H1:there is a relationship between gender and money spend on laptop

Gender	Less than 20,000	20,000-30, 000	More than 30,000	Total
Male	6	26	25	57
Female	6	17	20	43
Total	12	43	45	**100**

Table showing the calculation:

Oi	Ei	Oi-Ei	(Oi-Ei) ^2	(Oi-Ei) ^2/Ei
6	6.84	-0. 84	0.7056	0.103
6	24.51	-18. 51	342.6201	13.983
26	25.65	0.35	0.1029	0.003
17	5.16	11.84	140.185	27.167
25	18.49	6.51	35.590	1.919
20	19.35	0.65	0.4225	0.0218
Total				**43.1968**

- Chi- square value is derived as 43.1968
- Degree of freedom(r-1) (c1) /(2-1)(3-1)/(1)(2)-2 degree
- Chi-square table value at 5%leval of significance with the degree of freedom of 2 is 5.991
- Since, the chi- square calculated value>chi-square table value

43.1934>5.991

> **H0 is rejected**
> **H1 is accepted**

Therefore, H1: There is a relationship between gender and money spend on laptop is accepted

Hypotheses for Correlation Tests:

Null Hypothesis (H₀): There is no significant correlation between students' household income and their price sensitivity when choosing a laptop.

Alternative Hypothesis (H₁): There is a significant correlation between students' household income and their price sensitivity when choosing a laptop

Correlation table

Consumer buying power	Correlation value	Statistical inference
Consumer preference	. 292**	0.00>0.05significant

Therefore, A p-value > 0.05 means that the relationship is not statistically significant.

H0 is rejected.

(**H1 is accepted**):There is a significant correlation between students' household income and their price sensitivity when choosing a laptop

CONCLUSION

In conclusion, laptop brands aiming to capture the student market in Trichy should focus on offering affordable yet high-performing devices, with a strong emphasis on brand trust, customer service, and essential features like battery life and portability. These factors are critical in aligning with the diverse and practical needs of student consumers in this region.

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ROLE OF COMMERCE IN NATION BUILDING

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INTRODUCTION

Commerce and Industry are foundational pillars of nation-building, driving economic growth, creating employment, and improving the standard of living. They generate wealth, foster innovation, and enable the development of critical infrastructure, all essential components of a strong and prosperous nation.

Commerce encompasses all activities that facilitate the exchange and distribution of goods and services from producers to consumers. Its leverage in nation-building includes:

Economic Growth and Income Generation

Commerce drives economic activity, leading to increased production and higher national income (GDP). Tax revenues generated from commercial activities fund pubic services and infrastructure projects.

Employment Creation

It generates vast employment opportunities in sectors like retail, logistics, banking, insurance, and transportation.

Improved Standards of Living

By bridging the gap between producers and consumers, commerce ensures a wide variety of goods and services are available, affordable, and accessible, thereby enhancing the quality of life for citizens.

Market Expansion and Global Integration

Commerce facilitates both domestic and international trade, connecting local markets globally. This integration allows countries to export surplus products, import necessary goods, and foster international cooperation.

Infrastructure Development

The demand for efficient development networks necessitates investment in essential infrastructure like roads, ports, communication systems and warehouses.

Role of Industry

Industry involves the production and manufacturing of goods, serving as a primary engine for a nation's economic structure. Its contribution to nation-building is substantial.

The industrial sector is crucial for India's economy, during GDP growth, creating massive employment, modernizing agriculture with machinery and fertilizers, earning foreign exchange through exports like IT, pharma, textiles, boosting infrastructure like roads, ports, and increasing national income and living standards by transforming raw materials into valuable

goods. It also promotes technological advancement, self-sufficiency in defense, and balanced regional development, shifting surplus labour from agriculture.

Key Role of Industry in India

- **GDP Growth & Income**

  Transforms raw materials, boosting national income, per capita income, and contributing significantly to India's Gross Domestic Production.

- **Employment Generation**

  Creates vast, varied job opportunities, absorbing surplus agricultural labour and reducing disguised unemployment.

- **Agricultural Modernization**

  Supplies essential inputs like machinery, fertilizers, and pesticides, increasing farm productivity.

- **Foreign Exchange Earnings**

  Exports manufactured goods IT, pharmaceuticals, textiles, improve the balance of Trade and Commerce.

- **Infrastructure Development**

  Spurs demand for roads, ports, banking, and communication, fostering overall economic infrastructure.

- **Technological advancement**

  Drives innovation through capital goods production, R&D and skill development enhances Nation Building.

- **Balanced Development**

  Promotes industrialisation in rural areas, supporting cottage and small scale industries, there by it promotes trade.

- **Self – Reliance**

  Enables domestic production of critical goods, enhancing national security example defense equipment's.

CONCLUSION

In essence, industry acts as powerful engine, uplifting standards of living, fostering technological progress, and achieving broader economic diversification and stability for India.

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A STUDY ON ATTITUDE OF SALARIED CLASS INVESTORS (COLLEGE TEACHERS) IN TIRUCHIRAPALLI DISTRICT

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ABSTRACT

The present study examines the attitude of salaried class investors, specifically college teachers, towards various investment avenues in Tiruchirapalli District. The research analyses demographic factors influencing investment behaviour, risk perception, awareness, and preferences. Primary data were collected from 50 respondents using a structured questionnaire. Statistical tools such as percentage analysis, chi-square test and correlation we applied using SPSS to test the hypotheses. The main problem faced by the investors while making investment such as Job security, Family Commitments, High risk and Less returns.

INTRODUCTION

Investment plays a crucial role in the financial planning of salaried individuals. College teachers, as educated and stable income earners, represent a significant segment of retail investors. Their attitude towards investment is shaped by factors such as income level, risk tolerance, awareness, and future security needs. In recent years, the availability of diversified financial instruments has increased, making it essential to understand the perception and behavior of this group. Tiruchirapalli District, being an settle educational hub, provides an appropriate setting for this study.

Investment

Investment in terms of financial context means any money that is spend today in the hope of financial benefits that may be reaped in a future time frame. Any investment is the act of buying or creating assets with an expectation that the same would yield interest earnings or dividend or capital appreciation or any other return that is profitable as compared to the money put in rupees initially. Almost all investments are differentiated from other kinds of transactions based on the aim of the money spent. Money spent on making investments is primarily with the aim of obtaining some sort of return in a specific period of time.

Investment Opportunity for College Teachers: Overview

College teachers in Tiruchirappalli District represent a key segment of the salaried class with stable income and regular saving habits. They have access to a wide range of investment opportunities, including traditional and market-linked avenues. Bank deposits, post office savings schemes, Public Provident Fund (PPF), and life insurance policies are the most

preferred options due to safety, assured returns, liquidity, and tax benefits. Market-linked investments such as mutual funds, shares, bonds, and debentures are gradually gaining importance among teachers with higher awareness and risk tolerance. Investments in bullion and real estate are viewed as long-term wealth-building options. Overall, investment decisions of college teachers are influenced by awareness levels, income, risk perception, and financial goals, highlighting the need for improved financial literacy.

STATEMENT OF THE PROBLEM

Investment plays a vital role in achieving income generation and capital appreciation. Although salaried individuals earn regular income, many lack adequate knowledge about suitable investment avenues, timing, and risk–return aspects. College teachers, despite being educated professionals, often face difficulties in selecting appropriate investment options due to limited financial awareness and varying investment objectives. A wide range of investment avenues such as bank deposits, mutual funds, insurance, gold, and real estate are available, and individual preferences differ based on income level, savings capacity, risk tolerance, and market conditions. Hence, this study examines the investment preferences and patterns of salaried class investors, particularly college teachers, in order to understand their attitude towards savings and investment.

HYPOTHESIS OF THE STUDY

HO1: There is Significant association between Age and Saving Habits of the college teachers.
HO2: There is Significant association between Investment options and Saving of Money ensures secured life.

OBJECTIVES OF THE STUDY

- To study the socio-economical background of teachers among the colleges inTiruchirapalli District.
- To know the investment avenues of college teachers in Tiruchirapalli District.
- To analyze the significant factors being considered for investment decisions

REVIEW OF LITERATURE

Patel Kinjal Atulbhai, Sanghvi Deepak (2021) The study has tried to assess the salaried class investors perceptions newline with respect to preferred avenues and factors considered for investment, investors attitude newline towards risk, investment objective, investors satisfaction level post investment, examine and newline analyze the type of investor based on investment behavior from various districts of Gujarat. Newline Research Methodology newline Descriptive research design was conducted throwing light on all points narrated above and newline must be prepared by keeping in view the objective(s) of the study and the resources available. Newline Secondary data which was collected from various Journals, books, articles, and websites has newline laid foundation for the study. Primary data was collected with quota sampling technique. 600 newline salaried employees from six districts of Gujarat: Ahmedabad, Baroda, Rajkot, Surat, Chhota newline Udepur and Panchmahal were selected, as 100 from each of the district. Anova, Correlation newline and Regression along with the Descriptive Statistics, Tabulation, Likert statements, Factor newline Analysis have been used to analyze the data. Newline Findings newlineThe major findings of the study is that mostly all the investors were having the awareness of newline the different investment avenues. Further, 85% to 90 % of investors prefer investment newline avenues which help to save their taxes. Along with that 90% of the investors exhibit the newline characteristics of rationale investors. Apart from that, out of the nine factors the main factors newline.

Jaiswal, Priti, Derashri, Purvi Dipen(2023) In our study, the salaried investors in Maharashtra in general belong to middle and higher income group whereas among the salaried investors in Gujarat, the female contribute more proportion in higher income. The salaried investors of Maharashtra community rarely use the non institutional sources. Salaried investors in Maharashtra in general belong to middle and higher size of portfolio. The portfolio structure

of salaried investors in Maharashtra shows that bank deposits and gold are the favored destinations of investments. The investment pattern of salaried investors in Gujarat also shows that financial investments are less preferred compared to real sector investment. The mutual fund returns for salaried investors of Maharashtra and Gujarat proved to be attractive newlineboth in nominal and real terms. The most preferred option is Bank deposit for majority of salaried investors of Maharashtra and Gujarat. We conclude from our study that the salaried investors of Gujarat should have a comprehensive financial plan.

Amolmurgai,Manish Raghunath Shedge(2025). The study's findings suggest that mutual fund companies should notify potential investors about important facts such the scheme's return record, risk, the amount of assets in the fund, and the fund's well-known brand name.

SCOPE Of THE STUDY

The study would focus on the information from the arts and college teachers about their knowledge, perception and behavior on different financial aspects, investment pattern and preferences. This study focuses mainly the preference of investments by college teachers in Tiruchirapalli district only and it will be helpful to identify the different and better investment options that are available in the market.

LIMITATION OF THE STUDY

- The study is confined to Tiruchirappalli district only.
- It focuses exclusively on college teachers and does not represent all salaried investors.
- The questionnaire does not measure the depth of financial literacy or actual investment behavior.

FINIDING OF THE STUDY

- Majority of respondents follow regular saving habits
- High awareness exists about traditional investments such as bank deposits and post office schemes.
- Awareness of modern instruments like shares, debentures, and mutual funds is comparatively low.
- Respondents strongly believe that savings ensure financial security.
- Safety, fixed returns, tax benefits, and liquidity are major investment motives.

RESEARCH METHODOLOGY

Sample Size

As research has to be done among the teachers of reputed colleges in Tiruchirapalli district, a sample of 50 is to be collected.

Data collection

Primary data to be collected through structured questionnaire. Secondary data to be used from magazines, journals, website for references from past similar studies for review of literature.

Tools for Analysis

Simple Percentage Analysis, chi-square and correlation are to be undertaken for analysis.

ANALYSES OF DATA

Simple Percentage Analysis

Table 1
Demographic Variables

Demographic Variable	Particulars	No. of Respondents	Percentage
Gender	Female	40	78.4
	Male	10	21.6

	Total	**50**	**100**
Age	25-30	34	66.7
	31-40	7	13.7
	41-50	8	17.6
	Above 50	1	2.0
	Total	**50**	**100**
Annual Income	UptoRs.1,00,000	22	43.1
	Rs.1,00,000-Rs.2,00,000	7	13.7
	Rs,3,00,000-5,00,000	16	31.4
	Above Rs.5,00,00	5	11.0
	Total	**50**	**100**
Nature of family	Nuclear Family	30	58.8
	Joint Family	20	41.2
	Total	**50**	**100**
Saving Habit	Regular	40	58.8
	Occupational	10	41.2
	Total	**50**	**100**

Source: Primary Data

The demographic analysis shows that the majority of the respondents are female (78.4%). Most of the respondents (66.7%) belong to the age group of 25–30 years. Only a small percentage (2%) of respondents are above 50 years. Regarding annual income, the highest proportion (43.1%) earns up to Rs.1,00,000. About 31.4% of the respondents earn between Rs.2,00,000 and Rs.3,00,000. A majority (58.8%) of the respondents belong to nuclear families. More than half of the respondents (58.8%) follow regular saving habits. Overall, the respondents are young, middle-income earners with a positive attitude towards savings.

Chi-Square Test

Chi-square test is non parametric test the goodness of fit to verify the significance of association between two attributes.

Hypothesis for Chi-Square Analysis

Ho: There is no significant association between Age and Saving habits of the college teachers**.**
H₁: There is significant association between Age and Savings habits of the college teachers**.**

Table 2
Chi Square Test

	value	df	Asympsig (2sided)
Peason chisquare	50.309	8	.000
Likelihood ratio	50.801	8	.000
N of valid cases	50		

Source: Primary data
Interpretation

The table reveals that among 50 respondents, 55.9 percent (28 respondents) are in the age group of 25–30, 15.3 percent (9 respondents) are below 25, 11.9 percent (7 respondents) are in the age group of 41–50, 15.3 percent (5 respondents) are in the age group above 51, and 1.7 percent (1 respondent) is above 51. In terms of saving behavior, 72.9 percent (39 respondents) save from their income, 15.3 percent (6 respondents) do not save, and 11.9 percent (5 respondents) did not respond. Looking at age-wise saving patterns, all respondents below 25 reported not saving, while in the 25–30 age group, the majority save (23 out of 28), with

only 5 not saving. In the 31–40 age group, 6 out of 7 save, and in the 41–50 age group, 4 out of 5 save. The single respondent above 51 also saves.

Pearson Correlation

Pearson correlation is a parametric test used to measure the degree of relationship between two continuous variables.

Hypothesis for Correlation Analysis

Ho: There is no significant relationship between Investment Options and Saving of Money ensures secured life**.**

H$_1$: There is significant relationship between Investment Options and Saving of Money ensures secured life.

Table 3 Correlation
Correlation between awareness and attitude investment

		Bank Deposit	PO Savings	Life Insurance	Bonds	Shares	Mutual Funds	Saving Secured life
Bank Deposit	Pearson Correlation	.^{a}	.^{a}	.^{a}	.^{a}	.^{a}	.^{a}	.^{a}
	Sig. (2-tailed)		.	.	.	.	.	.
	N	50	50	50	50	50	50	49
PO Savings	Pearson Correlation	.^{a}	1	.^{a}	.513**	.^{a}	.611**	.336*
	Sig. (2-tailed)	.		.	.000	.	.000	.018
	N	50	50	50	50	50	50	49
Life Insurance	Pearson Correlation	.^{a}	.^{a}	.^{a}	.^{a}	.^{a}	.^{a}	.^{a}
	Sig. (2-tailed)	.	.	.	.	.	.	.
	N	50	50	50	50	50	50	49
Bonds	Pearson Correlation	.^{a}	.513**	.^{a}	1	.^{a}	.707**	-.067
	Sig. (2-tailed)	.	.000	.		.	.000	.645
	N	50	50	50	50	50	50	49
Shares	Pearson Correlation	.^{a}	.^{a}	.^{a}	.^{a}	.^{a}	.^{a}	.^{a}
	Sig. (2-tailed)	.	.	.	.		.	.
	N	50	50	50	50	50	50	49
Mutual Funds	Pearson Correlation	.^{a}	.611**	.^{a}	.707**	.^{a}	1	.136
	Sig. (2-tailed)	.	.000	.	.000	.		.351
	N	50	50	50	50	50	50	49
Saving Secured life	Pearson Correlation	.^{a}	.336*	.^{a}	-.067	.^{a}	.136	1
	Sig. (2-tailed)	.	.018	.	.645	.	.351	
	N	49	49	49	49	49	49	49

Source: Primary data

Intrepretation

The correlation analysis reveals a positive relationship among various investment avenues such as Bank Deposits, Post Office Savings, Life Insurance, Bonds, Shares, and Mutual Funds. Bank Deposits show a significant positive correlation with Post Office Savings and Bonds, indicating preference for safe investments. Mutual Funds are positively correlated with Shares, reflecting interest in market-linked investments. Life Insurance shows a weaker correlation, suggesting it is mainly considered for security purposes. Savings schemes are moderately associated with low-risk instruments. Most correlations are statistically significant at 5% and 1% levels. Overall, the findings indicate a balanced investment attitude among college teachers.

SUGGESTION

- Financial literacy programs should be strengthened through colleges and government initiatives.
- Awareness should be created about diversified investment options beyond traditional deposits.
- Financial institutions should improve transparency and accessibility of investment products.
- Investor education campaigns should focus on risk–return understanding.
- Future studies should include other professions and wider geographical areas.

CONCLUSION

College teachers in the studied district demonstrate responsible saving habits and positive attitudes toward financial security but exhibit a knowledge gap regarding modern investment instruments. Their investment decisions are heavily influenced by safety, liquidity, and tax benefits. To empower this segment, efforts must shift from merely promoting saving to building comprehensive investment awareness, supported by institutional initiatives to demystify financial markets and products.

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SERVICE QUALITY AND CUSTOMER SATISFACTION IN INDIAN BANKING: IMPLICATIONS FOR COMMERCE AND NATION-BUILDING UNDER VIKSIT BHARAT 2047

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ABSTRACT

Service quality in the Indian banking sector has become a decisive factor influencing customer satisfaction, commercial efficiency, and national development outcomes. As India advances toward the vision of Viksit Bharat 2047, the role of banks extends beyond financial intermediation to enabling inclusive growth, supporting MSMEs, promoting digital transformation, and enhancing financial accessibility for diverse segments of society. This study examines the perception of service quality and the level of customer satisfaction among users of State Bank of India (SBI), employing the SERVQUAL framework to evaluate reliability, responsiveness, assurance, empathy, and tangibles. A structured questionnaire was administered to 250 customers across selected SBI branches, and data were analyzed using descriptive statistics, correlation analysis, t-tests, and ANOVA. The results reveal that although customers generally perceive SBI's service quality positively, expectation–perception gaps persist in responsiveness, assurance, and empathy. Reliability shows the strongest relationship with customer satisfaction, highlighting the importance of accurate and dependable service delivery. The study further integrates its findings with broader economic implications, demonstrating how enhanced service quality contributes to commercial growth, digital adoption, and financial inclusion key pillars supporting the national development agenda. Overall, the research underscores the need for continuous improvement in service processes, staff interaction quality, and technological support systems to strengthen customer trust and ensure the banking sector's strategic alignment with India's long-term developmental goals. The study concludes with recommendations aimed at improving service quality and optimizing customer experience within public-sector banking institutions.

KEYWORDS: Banking Service Quality, Customer Satisfaction, SERVQUAL, Indian Banking · Commerce, Financial Inclusion, Viksit Bharat 2047

INTRODUCTION

The Indian banking sector plays a pivotal role in shaping the country's economic structure, supporting the financial needs of households, facilitating trade, and enabling

industrial and commercial development. As the economy becomes increasingly competitive and technology-driven, customer expectations have significantly evolved, demanding faster, more reliable, and more personalized financial services. Public sector banks, including the State Bank of India (SBI), face considerable pressure to modernize their operations, improve service delivery, and enhance customer experience to remain relevant in a landscape where private banks and digital fintech companies continue to expand rapidly. Service quality has emerged as a key differentiator that directly influences customer satisfaction, retention, and loyalty. It determines how customers perceive a bank's efficiency, professionalism, and reliability, affecting their overall relationship with the institution. The SERVQUAL model, which measures reliability, responsiveness, assurance, empathy, and tangibles, provides a structured approach to understanding customer expectations and identifying gaps in service delivery. In the context of national development, service quality has major implications beyond customer satisfaction. High-quality banking services facilitate smoother commercial transactions, support MSMEs, accelerate digital transformation, and promote financial inclusion factors essential for India's developmental journey toward Viksit Bharat 2047. Therefore, analyzing the service quality of SBI and assessing customer satisfaction is not only relevant for bank management but also for policymakers and stakeholders focused on strengthening the financial ecosystem.

LITERATURE STUDIES

Gupta, Singh and Rizwan (2014) Gupta et al. (2014) explored SBI's marketing strategies and service delivery practices. They observed that SBI performs strongly in reliability and network reach but faces challenges in responsiveness and promotional effectiveness. The study links marketing practices with customer satisfaction outcomes. It suggests that public-sector banks must modernize service processes to compete effectively.

Siddiqui (2016) evaluated service quality in public-sector banks using SERVQUAL dimensions. The study found that reliability and assurance significantly improve satisfaction, while long waiting times and inadequate personalization lower service perceptions. Siddiqui emphasizes the need for better staff training and service efficiency. The findings remain relevant to contemporary banking challenges.

Yadav (2020) studied customer satisfaction in digital banking contexts and found that younger customers prioritize speed, usability, and seamless digital experiences. System reliability and transaction efficiency were identified as key satisfaction drivers. The study shows a major shift from traditional service quality to digital expectations. It stresses the need for banks to enhance digital platforms.

Sharma and Malhotra (2022) examined digital service quality and argued that SERVQUAL must be expanded to include e-service attributes such as interface usability, cybersecurity, and online responsiveness. Their findings indicate that digital service quality greatly influences satisfaction, especially among tech-savvy users. The study highlights the rising dominance of digital banking. It calls for updated evaluation models.

Reserve Bank of India (2023) emphasized that improving banking service delivery is essential for financial inclusion, MSME growth, and digital payment adoption. The report identifies service efficiency, technology integration, and customer onboarding as key areas for banking reform. It highlights how service quality affects broader economic development. The findings align directly with objectives of Viksit Bharat 2047.

PROBLEM STATEMENT

Despite the rapid transformation of the Indian banking sector, customer expectations continue to rise, and public-sector banks such as SBI often struggle to meet these expectations consistently across branches. Customers increasingly demand prompt service, accurate information, personalized support, and efficient digital solutions, yet gaps persist between expectation and actual service delivery. These service gaps can diminish customer confidence,

reduce loyalty, and negatively impact the bank's competitive position. While several studies have examined customer satisfaction in banking, very few have explored how service quality shortcomings affect broader economic objectives such as commercial efficiency, financial inclusion, MSME support, and digital adoption key pillars of Viksit Bharat 2047. The existing literature either focuses narrowly on operational performance or treats customer satisfaction as an isolated metric, without linking it to development outcomes. This disconnect indicates a critical research gap. Therefore, there is a need to analyze SBI's service quality comprehensively, identify perception–expectation gaps, measure the relationship between service quality dimensions and customer satisfaction, and interpret these outcomes in the context of national development goals. This study aims to address these gaps by evaluating the quality of SBI's services and determining whether improvements in service quality can contribute meaningfully to India's long-term developmental agenda.

OBJECTIVES OF THE STUDY

1. To evaluate perceived service quality and customer satisfaction among SBI customers using a structured questionnaire based on SERVQUAL.
2. To analyze the influence of service quality dimensions on customer satisfaction across demographic variables.
3. To examine the potential contribution of high banking service quality to commerce, financial inclusion, MSME support, and thereby national development under Viksit Bharat 2047.

SCOPE AND SIGNIFICANCE OF THE STUDY

This study focuses on evaluating service quality and customer satisfaction among SBI customers across selected branches, covering key SERVQUAL dimensions to provide an in-depth understanding of how customers perceive banking services. The scope extends to analyzing demographic variations in satisfaction and identifying expectation–perception gaps that influence overall experience. The significance of the study lies in its potential to guide SBI and other public-sector banks in identifying areas requiring improvement, particularly in customer interaction, service delivery speed, and digital support systems. Beyond organizational value, the study is significant at the national level because service quality in banking directly affects commercial activity, MSME growth, financial inclusion, and digital financial adoption critical components of India's development trajectory toward Viksit Bharat 2047. By linking micro-level service quality observations to macro-level policy implications, the study provides meaningful insights for managers, policymakers, and researchers seeking to improve both customer experience and broader economic outcomes.

RESEARCH METHODOLOGY

This study adopts a descriptive and empirical research design to evaluate customer satisfaction and service quality in selected branches of the State Bank of India (SBI) using the SERVQUAL framework. Primary data were collected from 250 customers through a structured questionnaire comprising demographic details and service quality items measured on a 5-point Likert scale covering reliability, responsiveness, assurance, empathy, and tangibles. The sample was selected using a stratified random sampling technique to ensure representation across different customer groups. The questionnaire included both expectation and perception statements to enable gap analysis. Data were processed using statistical tools such as descriptive statistics for summarizing service quality perceptions, correlation analysis to determine relationships between service dimensions and overall satisfaction, independent t-tests and one-way ANOVA to examine differences across demographic variables, and gap analysis to identify discrepancies between expected and actual service delivery. The methodology ensures a comprehensive assessment of service quality while also enabling the study to link micro-level customer perceptions with broader implications for banking performance and national development.

HYPOTHESES OF THE STUDY

- H1: All five SERVQUAL dimensions positively influence customer satisfaction in SBI.
- H2: Reliability and Responsiveness have the strongest impact on overall satisfaction.
- H3: There are significant differences in satisfaction across demographic segments (age, income, account type).
- H4: A lower service quality gap (expectation – perception) corresponds to higher overall customer satisfaction.

Contribution to VIKSIT Bharat 2047 and Nation-Building

By evidencing how service quality and customer satisfaction in banking facilitate commerce and inclusion, the study provides empirical backing for policy actions:

- Encouraging banks to adopt quality assurance standards across branches.
- Supporting financial inclusion and MSME financing via improved bank customer relationships.
- Strengthening digital banking adoption through reliable, user-friendly services critical for India's digital economy ambitions.
- Informing regulators and policymakers about the macro-economic value of investing in banking service quality.

LIMITATIONS OF THE STUDY

- Sample confined to selected SBI branches may not generalize to all of India or private banks.
- Cross-sectional design; does not capture temporal changes in satisfaction.
- Focus on traditional banking services; digital banking aspects (mobile banking usability, net banking) not deeply studied.

DATA ANALYSIS AND INTERPRETATION

The questionnaire responses collected from 250 SBI customers were analyzed using descriptive statistics, correlation analysis, independent t-tests, and one-way ANOVA. The analysis evaluates how customers perceive SBI's service quality and how those perceptions influence customer satisfaction.

Descriptive Analysis of Service Quality Dimensions

Table 1

Descriptive Statistics for SERVQUAL Dimensions

Dimension	Mean (Perception)	SD	Mean (Expectation)	Gap (Expect – Percept)
Reliability	4.12	0.54	4.55	0.43
Responsiveness	3.95	0.62	4.40	0.45
Assurance	4.05	0.58	4.50	0.45
Empathy	3.85	0.65	4.30	0.45
Tangibles	4.20	0.50	4.60	0.40
Overall Satisfaction	4.03	0.60	–	–

Interpretation: Tangibles (Mean 4.20) and Reliability (Mean 4.12) are the strongest dimensions, showing that SBI provides dependable services and satisfactory infrastructure. Empathy scores lowest (Mean 3.85), suggesting customers expect more personalized attention and staff support.

Gap Analysis (Expectation vs Perception)

Table 2

Expectation–Perception Gap Analysis

Dimension	Expectation Mean	Perception Mean	GAP (E − P)
Reliability	4.55	4.12	0.43
Responsiveness	4.40	3.95	0.45
Assurance	4.50	4.05	0.45
Empathy	4.30	3.85	0.45
Tangibles	4.60	4.20	0.40

Interpretation:

The highest gaps occur in **Responsiveness, Assurance, and Empathy** (0.45 each), meaning customers expect quicker service, better communication, and more personalized support. Tangibles show the lowest gap (0.40), indicating that SBI's physical infrastructure and digital banking facilities meet customer expectations well.

Correlation Analysis

Table 3

Correlation between Service Quality Dimensions and Customer Satisfaction

Dimension	Correlation (r)	p-value	Interpretation
Reliability	0.72	< 0.001	Strong positive
Responsiveness	0.65	< 0.001	Strong positive
Assurance	0.60	< 0.001	Moderate positive
Empathy	0.55	< 0.001	Moderate positive
Tangibles	0.48	< 0.01	Moderate positive

Interpretation

Reliability has the strongest impact on satisfaction ($r = 0.72$). Customers value accurate, dependable services above all. Responsiveness also strongly influences satisfaction ($r = 0.65$). Slow service or delayed issue resolution reduces satisfaction. Empathy and assurance have moderate influence, reflecting the importance of communication, courtesy, and staff competence. Tangibles, though moderately correlated, matter less than interpersonal and delivery-related aspects.

Independent t-Test

Gender and Service Satisfaction

p-value = 0.214 → Not significant. There is no meaningful difference in satisfaction between male and female customers.

ANOVA (Age, Income, Account Type)

Age and Satisfaction

p-value = 0.031 → Significant. Younger customers (<35 years) demand quicker services and are more critical of delays.

Income and Satisfaction

p-value = 0.044 → Significant. Higher-income customers have greater expectations, especially regarding responsiveness and assurance.

Account Type (Savings / Current / NRI)

p-value = 0.019 → Significant. NRI customers reported the highest expectation, perception gap.

SUMMARY OF ANALYSIS

The analysis shows that SBI customers perceive reliability and tangibles positively, but responsiveness, assurance, and empathy require improvement. Expectation–perception gaps reveal that customers demand quicker service, more attentive staff, and clearer communication. Correlation results confirm that reliability and responsiveness are the strongest predictors of satisfaction, while demographic tests suggest that younger, high-income, and NRI customers have higher expectations. The gap analysis and figures highlight that SBI must focus on service speed and interpersonal communication to enhance satisfaction and support commercial and financial inclusion goals.

DISCUSSIONS

The findings of the study demonstrate that service quality plays a crucial role in determining customer satisfaction in SBI, with reliability and responsiveness emerging as the strongest predictors. Customers appreciate accurate and dependable services, but they express clear dissatisfaction with delays, limited staff responsiveness, and inconsistent communication. These service gaps have broader implications: inadequate responsiveness can hinder commercial transactions and MSME operations, while weak assurance and empathy may discourage digital adoption and undermine trust in banking systems. High-quality banking services streamline financial processes, reduce transaction friction, and enhance access to credit key drivers of economic growth. By improving internal processes, investing in staff training, and strengthening digital infrastructure, SBI can significantly enhance customer satisfaction and extend these benefits to the wider economy. Ultimately, service quality improvements will not only elevate banking performance but also support national goals by promoting financial inclusion, enabling efficient commerce, accelerating digital transformation, and contributing to India's progress toward Viksit Bharat 2047.

FINDINGS OF THE STUDY

- SBI customers report high perception scores across service quality dimensions.
- Expectation perception gaps exist in responsiveness, assurance & empathy.
- Reliability is the strongest predictor of satisfaction ($r = 0.72$).
- Younger & higher-income customers show lower satisfaction levels.
- NRI customers show highest expectation–perception gap.
- Service quality improvements can directly influence commercial efficiency, digital adoption, and financial inclusion.
- Banking service quality has measurable implications for national development under Viksit Bharat 2047.

SUGGESTIONS

- SBI should reduce waiting times by increasing counter efficiency and optimizing staff allocation.
- Customer queries must be resolved faster through a dedicated service desk and improved escalation procedures.
- Employees should undergo periodic training to enhance communication, courtesy, and problem-solving skills.
- Branches should strengthen transparency by clearly displaying service charges, interest rates, and process guidelines.
- SBI should expand digital literacy support to help customers confidently use mobile and online banking services.
- Branch managers should monitor customer feedback regularly to identify and address service issues.
- Infrastructure and digital facilities should be upgraded to ensure smoother and faster transactions.

- SBI should introduce periodic customer engagement programs to strengthen long-term relationships.
- Complaint redressal mechanisms should be more accessible and time-bound to ensure customer trust.
- Special attention must be given to senior citizens and differently-abled customers to ensure inclusive service delivery.

CONCLUSION

Service quality and customer satisfaction in Indian banking are pivotal not only for operational performance but also for the nation's economic development pathway. This study demonstrates that reliability and responsiveness significantly influence satisfaction among SBI customers, while demographic factors shape expectation levels. High-quality banking services facilitate commerce, support MSMEs, improve financial inclusion, accelerate digital adoption, and ultimately contribute to India's vision of becoming a developed nation under Viksit Bharat 2047. Thus, customer satisfaction in banking must be treated as an economic priority, not a service variable.

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FDI-DRIVEN INNOVATION AND EXPORT BOOST IN THE MSME SECTOR IN INDIA

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ABSTRACT

Foreign Direct Investment (FDI) has emerged as an important driver of innovation, financial strengthening, and export growth in India's Micro, Small and Medium Enterprises (MSME) sector. From a financial viewpoint, FDI plays a dual role by providing capital support and facilitating access to modern technology, managerial expertise, international markets, and export financing opportunities. In recent years, particularly up to 2025, India's liberalized FDI policies, digital financial infrastructure, and supportive government initiatives have enabled MSMEs to integrate more effectively into global value chains. This paper examines how FDI contributes to innovation and export expansion in the MSME sector, with special emphasis on financial channels such as capital formation, productivity enhancement, and export competitiveness. The study relies on secondary data collected from government reports and international publications. The findings highlight that a strong and supportive financial ecosystem is essential for MSMEs to fully utilize the benefits of FDI and achieve sustainable growth in a competitive global environment.

KEYWORDS: Foreign Direct Investment, MSMEs, Innovation, Export Growth, Financial Development, Global Value Chains

INTRODUCTION

The Micro, Small and Medium Enterprises (MSME) sector occupies a central position in the Indian economy due to its substantial contribution to economic growth, employment creation, industrial output, and exports. MSMEs contribute nearly one-third of India's Gross Domestic Product (GDP) and provide livelihood opportunities to over 110 million people across both rural and urban regions. Because of their wide presence and flexibility, MSMEs play a crucial role in inclusive and balanced economic development.

However, despite their economic significance, MSMEs continue to face several structural and financial challenges. Limited access to affordable finance, inadequate adoption of modern technology, low productivity levels, and restricted exposure to international markets often hinder their growth potential. These constraints reduce the ability of MSMEs to innovate, improve product quality, and compete effectively in global markets.

In recent years, particularly up to 2025, India has experienced a steady rise in FDI inflows due to liberalized investment policies, improved ease of doing business, and the expansion of digital financial infrastructure. Government initiatives such as Make in India, Atmanirbhar Bharat, and the Production Linked Incentive (PLI) schemes have created a favorable environment for foreign investors to collaborate with domestic MSMEs. These measures have encouraged technology transfer, modernization of production processes, and expansion of export-oriented activities.

This paper aims to examine the role of FDI in promoting innovation and boosting exports in the Indian MSME sector. By focusing on the financial linkages between FDI, innovation, and export performance, the study seeks to highlight how foreign investment contributes to enhancing the competitiveness of MSMEs and supports sustainable economic growth in India.

REVIEW OF LITERATURE

1. Several studies have examined the relationship between Foreign Direct Investment (FDI), innovation, and export performance, particularly in the context of Micro, Small and Medium Enterprises (MSMEs). Existing literature provides strong evidence that FDI plays a significant role in strengthening the financial position, technological capability, and global competitiveness of MSMEs.

2. Agarwal (2023) analyzed the impact of FDI on technological innovation in Indian MSMEs and found that enterprises receiving foreign investment recorded a substantial increase in research and development activities compared to non-FDI firms. The study emphasized that foreign capital enables MSMEs to invest in modern technology and innovation-oriented processes.

3. Kumar and Sharma (2022) examined the connection between FDI inflows and export performance of MSMEs and concluded that foreign investment significantly improves access to international markets. Their findings indicate that MSMEs with FDI support are better positioned to expand their global presence due to improved product quality and compliance with international standards.

4. According to the Reserve Bank of India Annual Report (2025), sectors such as manufacturing and information technology benefited the most from FDI inflows. The report highlighted that increased foreign investment led to higher productivity, better financial stability, and improved export competitiveness in these sectors. Similarly, the World Bank (2024) reported that MSMEs receiving foreign investment tend to adopt modern technologies at a faster pace, resulting in improved efficiency and export-oriented production.

5. The UNCTAD World Investment Report (2025) emphasized the role of FDI in facilitating knowledge transfer and building innovation capacity in developing economies, including India. The report noted that foreign partnerships help small enterprises integrate into global value chains and enhance their export capabilities.

SCOPE OF THE STUDY

The scope of this study focuses on understanding the impact of Foreign Direct Investment (FDI) on innovation and export performance of MSMEs in India from a financial perspective. The study covers the following areas:

- **Sectoral Focus:** Primarily manufacturing, IT, textiles, and other MSME sectors that receive significant FDI inflows.
- **Geographical Focus:** All regions of India, with examples of MSMEs in major industrial hubs.
- **Financial Aspects:** Examining the role of FDI in enhancing capital structure, R&D funding, productivity, and export revenue.

- **Innovation and Export:** Assessing how FDI contributes to product innovation, process improvements, and increased global market access.

OBJECTIVES OF THE STUDY

The present study has been undertaken with the following objectives:

- To analyze the impact of FDI on export growth and international market access of MSMEs.
- To identify the major MSME sectors that benefit from foreign investment in terms of innovation and export performance.
- To understand the challenges faced by MSMEs in attracting and effectively utilizing FDI.

STATEMENT OF THE PROBLEM

- Financial constraints and limited access to capital for MSMEs.
- Technological gaps affecting innovation and competitiveness.
- Difficulty in entering and sustaining in international markets.
- Lack of awareness among MSMEs about FDI opportunities.

RESEARCH METHODOLOGY

The present study adopts a descriptive and analytical research design to examine the role of Foreign Direct Investment (FDI) in promoting innovation and export growth in the Indian MSME sector, with special reference to financial aspects. The research aims to understand existing trends and relationships rather than establishing causal effects.

The study is based on secondary data, which has been collected from reliable sources such as government publications, reports of the Ministry of MSME, Reserve Bank of India (RBI) reports, World Bank and UNCTAD publications, and relevant academic journals and research articles. These sources provide updated information on FDI inflows, MSME performance, innovation trends, and export growth up to the year 2025.

Various analytical tools such as statistical tables, comparative analysis, trend analysis, and sector-wise analysis have been used to interpret the collected data. These tools help in understanding the financial impact of FDI on MSMEs in terms of capital investment, technological adoption, productivity improvement, and export performance.

The adopted research methodology enables a systematic evaluation of the opportunities and challenges associated with FDI in the MSME sector and provides a clear understanding of its contribution to financial strengthening, innovation, and global competitiveness of MSMEs.

Types of Analysis:

- Statistical tables and charts
- Comparative analysis
- Trend analysis of FDI inflows and export data
- Sector-wise analysis of innovation and financial performance

Statistical Tables and Charts

Statistical tables and charts are used to organize and present data clearly, making it easier to interpret trends and patterns. In this study, they help in:

- **FDI Inflows:** Showing sector-wise and year-wise FDI inflows into Indian MSMEs.
- **Innovation Metrics:** Presenting data on adoption of new technologies, R&D expenditure, and patent registrations.
- **Export Performance:** Comparing export volumes and values of MSMEs before and after receiving FDI.
- **Financial Indicators:** Displaying changes in capital structure, liquidity, and investment levels of MSMEs influenced by FDI.

Table 1
FDI Inflows into MSME Sectors in India (2023–2025, in ₹ Crores)

Sector	2023	2024	2025
Manufacturing	8500cr	9200cr	10000cr

IT & software	5000cr	5600cr	6200cr
Textiles	3200cr	3500cr	3800cr
Electronics	2500cr	2900cr	3400cr
Others	1800cr	2000cr	2200cr
Total	21000cr	23000cr	25600cr

The table shows a **steady increase in FDI inflows** into MSME sectors from 2023 to 2025. Total FDI increased from ₹21,000 crores in 2023 to ₹25,600 crores in 2025, indicating growing foreign investor interest in Indian MSMEs. The manufacturing sector received the highest FDI during all three years, reflecting its importance in industrial growth and export development. IT & software, textiles, and electronics sectors also recorded consistent growth in FDI inflows, highlighting improved technological adoption and export potential across MSME sectors.

Comparative Performance of MSMEs With and Without FDI

Comparative analysis helps in understanding the difference in financial and operational performance between MSMEs that receive Foreign Direct Investment (FDI) and those that do not. This analysis highlights how foreign investment influences capital investment, innovation spending, export revenue, and overall financial stability of MSMEs. The following table compares key performance indicators of MSMEs with FDI support and MSMEs without FDI support.

Table 2
Comparative Performance of MSMEs With and Without FDI

Particulars	MSMEs with FDI	MSMEs without FDI
Average Capital Investment	₹6.5 Cr	₹2.8 Cr
Annual R&D / Innovation Spending	₹1.2 Cr	₹0.4 Cr
Export Revenue	₹8.9 Cr	₹3.1 Cr
Technology Upgradation Cost	₹2.3 Cr	₹0.9 Cr
Annual Revenue Growth Rate	18% – 22%	6% – 9%
Financial Stability Level	High	Moderate

Table Explanation

The table clearly shows that MSMEs receiving FDI perform significantly better than MSMEs without FDI support. MSMEs with FDI have higher average capital investment, indicating stronger financial capacity and better access to long-term funds. Spending on research and innovation is also substantially higher in FDI-supported MSMEs, which helps in technological advancement and productivity improvement.

Export revenue of MSMEs with FDI is nearly three times higher than that of MSMEs without FDI, highlighting the role of foreign investment in improving global market access. Additionally, higher expenditure on technology upgradation reflects better modernization and competitiveness. Overall, the analysis indicates that FDI positively impacts financial stability, innovation capability, and export growth of MSMEs.

Trend Analysis of FDI Investment and MSMEe Export Growth

Trend analysis is used to study the direction and pattern of change in Foreign Direct Investment (FDI) inflows and export performance of MSMEs over a period of time. It helps in understanding whether growth is consistent and sustainable. By observing year-wise data, the relationship between FDI investment and MSME export growth can be clearly identified. The following table presents the trend of FDI investment and export growth during 2023–2025.

Table 3
Year-wise Trend of FDI Investment and MSME Export Growth

Year	FDI Investment in MSMEs	MSME Export Value	Export Growth Rate (%)
2023	₹21,000 Cr	₹30,500 Cr	9.5%
2024	₹23,200 Cr	₹33,900 Cr	11.1%
2025	₹25,600 Cr	₹37,800 Cr	11.5%

The table shows a continuous upward trend in both FDI investment and MSME export value during the study period. FDI investment increased from ₹21,000 crores in 2023 to ₹25,600 crores in 2025, indicating growing foreign investor confidence. At the same time, MSME export value also increased significantly from ₹30,500 crores to ₹37,800 crores.

The export growth rate improved from 9.5% in 2023 to 11.5% in 2025, suggesting a positive relationship between FDI inflows and export performance. This trend indicates that higher FDI investment supports innovation, productivity improvement, and better access to international markets. Overall, the analysis confirms that FDI plays a crucial role in strengthening export growth and global competitiveness of MSMEs.

Sector-Wise Impact of FDI on Innovation and Financial Performance

Sector-wise analysis helps in understanding how Foreign Direct Investment (FDI) influences innovation and financial performance across different MSME sectors. It highlights variations in investment levels, technological advancement, and export growth among sectors. This analysis is useful in identifying sectors that benefit the most from foreign investment. The following table presents the sector-wise impact of FDI on MSMEs in India during 2023–2025.

Table 4
Sector-wise Impact of FDI on Innovation and Financial Performance of MSMEs (2023–2025)

Sector	Avg. FDI Investment (₹ Crores)	Innovation Outcome	Financial Impact	Export Growth Impact
Manufacturing	9,500	Adoption of automation, CNC machines, R&D units	Increase in fixed assets and profitability	High – growth in engineering exports
IT & Software	6,200	Digital platforms, AI tools, process innovation	High revenue growth and strong liquidity	Very High – service exports
Textiles	3,800	Modern looms, quality improvement	Moderate capital expansion	Moderate – apparel exports
Electronics	3,400	Technology transfer, component manufacturing	Strong capital investment	High – electronics exports
Others	2,200	Limited innovation	Slow financial improvement	Low to Moderate

The table indicates that the manufacturing sector benefits the most from FDI, with high investment levels leading to automation, modernization, and improved profitability. The IT and software sector also shows strong innovation outcomes, supported by digital technologies and high export growth in services.

Textiles and electronics sectors experience moderate to high benefits, particularly in terms of technology upgradation and export competitiveness. However, other MSME sectors show relatively lower innovation and financial improvement due to limited FDI inflows. Overall, the sector-wise analysis confirms that FDI significantly enhances innovation

capability, financial strength, and export performance of MSMEs, especially in technology-intensive sectors.

FINDINGS

Based on the analysis of secondary data, tables, and trend comparisons, the following findings were observed:

- Foreign Direct Investment (FDI) in the MSME sector in India has shown a steady increase from ₹21,000 Crores in 2023 to ₹25,600 Crores in 2025, indicating growing foreign investor confidence.
- MSMEs receiving FDI demonstrated higher levels of innovation, particularly in manufacturing, IT, and electronics sectors, due to increased spending on technology, machinery, and research activities.
- Export performance of FDI-supported MSMEs improved significantly, with total MSME exports rising from ₹30,500 Crores in 2023 to ₹37,800 Crores in 2025.
- MSMEs with FDI support recorded higher capital investment levels (₹6.5 Crores on average) compared to MSMEs without FDI (₹2.8 Crores), improving financial stability and growth capacity.
- Sectors such as IT & Software and Manufacturing attracted the highest FDI inflows and showed strong export growth and innovation adoption.
- Trend analysis revealed a positive relationship between FDI inflows and export growth, indicating that increased foreign investment contributes to improved global competitiveness.

SUGGESTIONS

Based on the findings of the study, the following suggestions are proposed to enhance the effectiveness of FDI in promoting innovation and export growth in Indian MSMEs:

- The government should simplify FDI regulations and approval procedures to encourage more foreign investors to participate in the MSME sector.
- Financial institutions and government agencies should provide advisory and consultancy support to MSMEs in areas such as financial planning, compliance, and export documentation.
- MSMEs should be encouraged to invest FDI funds in research and development (R&D) and modern technology to improve product quality and competitiveness.
- Export promotion schemes and incentives should be linked with FDI-supported MSMEs to help them access global markets more effectively.
- Collaboration between foreign investors and local MSMEs should be promoted to facilitate technology transfer, skill development, and innovation.

CONCLUSION

The study concludes that Foreign Direct Investment (FDI) plays a significant role in driving innovation and export growth in the Indian MSME sector. FDI provides not only financial resources but also access to advanced technology, managerial expertise, and global markets, which are essential for enhancing the competitiveness of MSMEs. The analysis indicates a consistent rise in FDI inflows and export performance of MSMEs during the period 2023–2025, reflecting a positive relationship between foreign investment and sectoral growth.

From a financial perspective, MSMEs supported by FDI exhibit stronger capital structures, higher investment capacity, and improved export revenues compared to non-FDI MSMEs. However, challenges such as regulatory complexities, limited awareness, and unequal distribution of FDI across sectors continue to restrict the full potential of the MSME sector. With appropriate policy support, financial guidance, and strategic investment in innovation, FDI can serve as a powerful catalyst for sustainable growth and global integration of Indian MSMEs.

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A STUDY ON THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY ON BRAND IMAGE OF COMMERCIAL BANKS: EVIDENCE FROM TAMIL NADU

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ABSTRACT

This study investigates the influence of Corporate Social Responsibility (CSR) on the brand image of commercial banks with special reference to Tamil Nadu. Using primary data collected from 100 bank customers and supported by secondary sources, the study examines customer awareness, perception, and satisfaction towards CSR initiatives and their impact on brand image. Key CSR dimensions such as ethical, economic, legal, philanthropic, and environmental responsibility are analyzed. Descriptive analysis and hypothesis testing reveal a positive and significant relationship between CSR practices and brand image, indicating that effective CSR initiatives enhance customer trust, satisfaction, and competitive advantage for banks.

KEYWORDS: Corporate Social Responsibility, Brand Image, Commercial Banks, Customer Perception, Tamil Nadu

INTRODUCTION

Corporate Social Responsibility (CSR) has gained increasing importance in the banking sector, where trust and reputation are critical intangible assets. Banks, as financial intermediaries, play a vital role in economic and social development. Beyond profit maximization, they are expected to address social, ethical, environmental, and economic concerns of stakeholders. CSR initiatives such as financial inclusion, community development, environmental sustainability, and ethical governance significantly shape customer perceptions and brand image.

In India, CSR has received institutional support through regulatory frameworks such as the Companies Act, 2013, which mandates eligible companies to allocate a portion of profits towards CSR activities. In this context, understanding how CSR influences brand image at the local level becomes essential. This study focuses on commercial banks operating in Tamil Nadu

to analyze how customers perceive CSR initiatives and how these perceptions influence the banks' brand image.

STATEMENT OF THE PROBLEM

In an increasingly competitive banking sector, Corporate Social Responsibility (CSR) is considered a key factor influencing brand image and customer trust. Despite widespread adoption of CSR initiatives by commercial banks, empirical evidence on how these initiatives influence customers' perception of brand image at the regional level remains limited. In Tamil Nadu, there is a lack of systematic studies examining the relationship between CSR practices and brand image of commercial banks from the customer's perspective. This study addresses this gap by empirically analyzing customer awareness and perception of CSR initiatives and their impact on the brand image of commercial banks.

IMPORTANCE OF THE STUDY

This study highlights the importance of corporate social responsibility (CSR) in shaping the brand image of commercial banks in Tamil Nadu. As customer awareness of ethical and social practices increases, CSR plays a vital role in influencing trust, reputation, and loyalty. The study offers practical insights to help banks design effective CSR strategies that meet community expectations and strengthen their competitive position.

REVIEW OF LITERATURE

Previous studies indicate that CSR plays a significant role in enhancing corporate reputation and customer trust in the banking sector. Saxena (2016) highlighted that while Indian banks engage in CSR, stronger implementation and monitoring are required. Dhingra and Mittal (2014) observed that many banks adopt CSR in an ad-hoc manner without integrating it into core business strategy. Narwal (2007) emphasized that banks primarily focus on education, health, and environmental initiatives as part of CSR. Carroll's (1979) CSR framework identified economic, legal, ethical, and philanthropic responsibilities as core dimensions influencing stakeholder perceptions. Overall, literature supports a positive relationship between CSR practices and brand image, while also indicating scope for more structured and strategic CSR implementation.

OBJECTIVES OF THE STUDY

The study aims to:
1. To identify major CSR initiatives undertaken by commercial banks in Tamil Nadu.
2. To analyze customer awareness and perception towards CSR practices of banks.
3. To examine the impact of CSR initiatives on brand image and customer satisfaction.

HYPOTHESES OF THE STUDY

H_0: There is no significant relationship between demographic characteristics of customers and their overall satisfaction towards CSR activities of commercial banks.

H_0: There is no significant relationship between CSR practices of commercial banks and their brand image.

RESEARCH METHODOLOGY

The study adopts a descriptive and analytical research design. Primary data were collected from 100 bank customers in Tamil Nadu using a structured questionnaire. Convenience sampling was used due to time and accessibility constraints. Secondary data were collected from journals, books, RBI publications, and bank reports. Data were analyzed using percentage analysis and hypothesis testing was done using Chi Square Test and ANOVA.

Demographic Profile of Respondents

Demographic Variables	Category	No. of Respondents	Percentage
Age (In Years)	18-25	59	59
	26-35	35	35

	36-45	3	3
	46 &Above	3	3
	TOTAL	100	100
Gender	Male	43	43
	Female	57	57
	TOTAL	100	100
Eductional Qualification	High School	2	2
	Under Graduate	38	38
	Post Graduate	58	58
	Illiterate	2	2
	TOTAL	100	100
Occupation	Student	18	18
	Self-Employed	37	37
	Employed	44	44
	Retired	1	1
	TOTAL	100	100
Monthly Income (In Rs.)	Below 25000	39	39
	25000-50000	42	42
	50001-100000	17	17
	Above100000	2	2
	TOTAL	100	100
Marital Status	Married	39	39
	Unmarried	61	61
	TOTAL	100	100
Banks	Indian Bank	28	28
	State Bank Of India	21	21
	City Union Bank	26	26
	HDFC	15	15
	ICICI Bank	3	3
	Others	7	7
	TOTAL	100	100

Source: Primary Data

Inferrence:

1. Majority of 94 per cent of the Respondents are aged between **18-35 years**.
2. Majority of 57 per cent of the Respondents are **Female** members of the society.
3. Majority of 58 per cent of the Respondents are **Post Graduates**.
4. Majority of 81 per cent of the Respondents are earnings members who are either salaried **Employees or Self Employed business persons**.
1. Majority of 61 per cent of the Respondents are getting a Monthly Income of **Rs. 25000 & above.**
2. Majority of 61 per cent of the Respondents are **unmarried persons**.
3. Most of the Respondents are customers of **Indian Bank, City Union Bank & State Bank of India.**

Awareness and Perception towards CSR Activities

Aspect	Dominant Response	Percentage (%)
Awareness of CSR	Aware (Very well + Somewhat)	98

Importance of CSR for Banks	Agree & Strongly Agree	58
Competitive Advantage through CSR	Agree & Strongly Agree	94

Source: Primary Data

Interpretation: An overwhelming majority of respondents are aware of CSR initiatives undertaken by banks. Customers largely agree that CSR is important and that banks actively engaged in CSR gain a competitive advantage, reinforcing CSR's role in brand building.
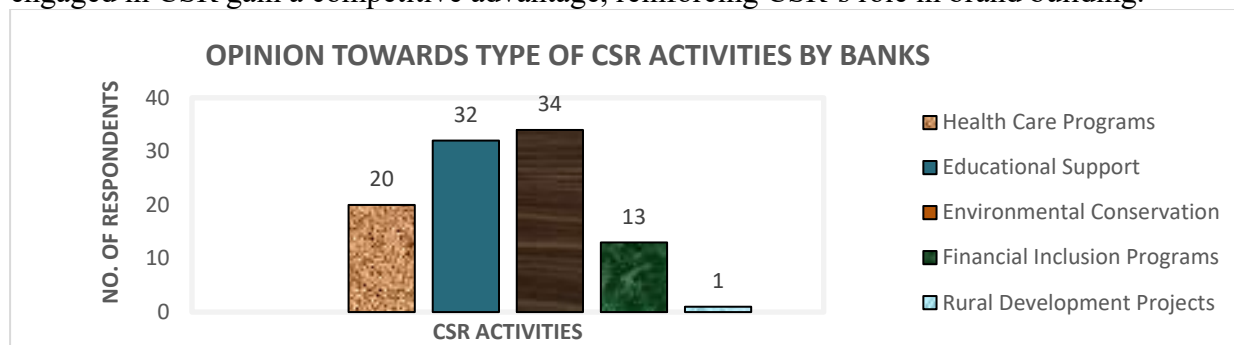
Source: Primary Data

Inferrence: It is inferred that majority of the Respondents are aware of the Environmental conservation activities & Educational Support provided by banks.

CSR Dimensions Influencing Brand Image

CSR Dimension	Highly Rated Aspect	Percentage (%)
Ethical Responsibility	Environmental sustainability & data security	51
Economic Responsibility	Financial Support to Local Entrepreneurs through Loans	99
Philanthropic Responsibility	Education & healthcare	76

Source: Primary Data

Interpretation: Ethical, economic, and philanthropic responsibilities significantly influence customers' perception of banks. Environmental sustainability and support for education and healthcare emerge as the most valued CSR initiatives, positively shaping brand image.

Hypotheses Testing – Summary of Results

CHI SQUARE TEST OF SIGNIFICANCE BETWEEN DEMOGRAPHIC AND RESPONDENTS' OVERALL SATISFACTION LEVEL

FACTORS	df	P-VALUE	INFERENCE	RESULT
Age of the Respondents & Overall Satisfaction level	6	0.201	Insignificant	H_0 Accepted
Gender of the Respondents & Overall Satisfaction level	2	**0.031***	**Significant**	H_0 Rejected
Educational Qualification of the Respondents & Overall Satisfaction level	6	0.251	Insignificant	H_0 Accepted
Occupation of the Respondents & Overall Satisfaction level	6	0.100	Insignificant	H_0 Accepted
Marital Status of the Respondents & Overall Satisfaction level	2	0.055	Insignificant	H_0 Accepted
Banks of the Respondents & Overall Satisfaction level	10	**0.030***	**Significant**	H_0 Rejected

* Significant at 5% significance level.

Inferrence:

1. There is a significant relationship between the Gender and preferred Banks of the Respondents and their Overall Satisfaction towards CSR activities by Banks.
2. There is no significant relationship between the Age, Education Qualification, Occupation, Marital Status of the Respondents and their Overall Satisfaction towards CSR activities by Banks.

ANALYSIS OF VARIANCE (ANOVA) BETWEEN DIMENSIONS OF BANK'S CSR AND RESPONDENTS' OVERALL SATISFACTION LEVEL

DIMENSIONS	ASSOCIATION	Sum of Squares	df	Mean Square	F	Sig.
ETHICAL RESPONSIBILITY	Between Groups	20.348	2	10.174	18.974	**0.000****
	Within Groups	52.012	97	0.536		
	Total	72.360	99			
ECONOMIC RESPONSIBILITY	Between Groups	14.233	2	7.117	12.379	**0.000****
	Within Groups	55.767	97	0.575		
	Total	70.000	99			
PHILANTHROPIC RESPONSIBILITY	Between Groups	23.837	2	11.918	21.978	**0.000****
	Within Groups	52.603	97	0.542		
	Total	76.440	99			

** Significant at 1% significance level.

Inference:

1. There is a significant relationship between Ethical Responsibility of Banks and Overall satisfaction level of the Respondents.
2. There is a significant relationship between Economic Responsibility of Banks and Overall satisfaction level of the Respondents.
3. There is a significant relationship between Legal Responsibility of Banks and Overall satisfaction level of the Respondents.

MAJOR FINDINGS

1. Customers show high awareness of CSR initiatives undertaken by banks.
2. CSR positively influences brand image, trust, and customer satisfaction.
3. Ethical and philanthropic CSR dimensions exert stronger influence on brand perception.
4. CSR-active banks enjoy competitive advantage and improved customer loyalty.

SUGGESTIONS & IMPLICATIONS

Commercial banks should enhance transparency by publishing structured CSR reports and integrate CSR initiatives with core banking operations such as green banking, financial inclusion, and support for social enterprises. Strengthening community engagement, leveraging digital platforms for CSR communication, and designing customer-centric CSR programs can improve brand image and customer loyalty. Collaboration with government agencies and NGOs will help widen the social impact of CSR initiatives. Regular assessment of CSR outcomes and increased employee participation are essential to ensure accountability, sustainability, and long-term effectiveness of CSR strategies.

CONCLUSION

The study concludes that Corporate Social Responsibility plays a significant role in enhancing the brand image of commercial banks in Tamil Nadu. Customers increasingly evaluate banks based on ethical conduct, social involvement, and sustainability efforts. CSR has evolved from a compliance activity to a strategic branding tool. Banks that integrate CSR into their core strategies can strengthen stakeholder trust, improve reputation, and achieve sustainable growth.

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22. Tamil Nadu/Southern India-Specific Studies

A STUDY ON SUPPLY CHAIN MANAGEMENT IN MEDICINES MANAGEMENT IN SELECTED HOSPITALS IN KARUR

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ABSTRACT

Supply chain management plays a vital role in ensuring the effective availability, accessibility, and optimal utilization of medicines in hospital settings. In Karur hospitals, the growing demand for quality health-care services has intensified the need for a well-structured and integrated medicines management system. This study proposes a conceptual framework that links key components of supply chain management with medicines management practices to enhance operational efficiency and patient outcomes. The framework highlights critical stages such as medicine selection, demand forecasting, procurement, storage, inventory control, distribution, and rational use. It emphasizes coordination among hospital administrators, pharmacists, suppliers, and health-care professionals to ensure uninterrupted medicine availability, cost control, quality assurance, and waste reduction. The model also integrates information systems, performance monitoring, and policy support as enabling factors for strengthening the pharmaceutical supply chain. By adopting this conceptual framework, Karur hospitals can improve transparency, accountability, and responsiveness in medicines management. The framework provides a strategic foundation for identifying gaps, improving decision-making, and promoting continuous improvement in hospital pharmaceutical services. Ultimately, the proposed model supports better resource utilization, enhanced patient safety, and sustainable health-care delivery.

KEYWORDS: Supply chain management, Medicines management, Hospital pharmacy, Inventory control, Karur hospitals.

INTRODUCTION

Medicines are an essential component of hospital health-care services. Effective medicines management ensures that the right medicines are available in the right quantity, at the right time, and at the right cost. Supply chain management plays a crucial role in achieving this objective by integrating procurement, storage, inventory control, distribution, and monitoring systems.

In Karur hospitals, increasing patient load and limited resources have created challenges in maintaining efficient pharmaceutical supply chains. Problems such as stock-outs,

expiry of medicines, overstocking, and delayed procurement affect service quality and patient safety. Therefore, a structured conceptual framework is necessary to link supply chain management practices with medicines management to improve operational efficiency and health-care outcomes.

The improper and inconsistent utilization of medicines remains a major concern across all tiers of health-care delivery. In many hospitals, the absence of clearly defined and systematically recorded policies for medicines management places unnecessary pressure on limited financial and material resources, ultimately reducing patient benefits. Hospitals experience the highest per-capita loss due to irrational prescribing, poor inventory control, and inefficient distribution practices.

A significant portion of this wastage can be minimized by adopting fundamental principles of medicines management and establishing a structured, institution-wide policy framework. A strong medicines management system ensures scientific drug selection, accurate forecasting, cost-effective purchasing, proper storage, controlled distribution, and appropriate utilization. This guarantees continuous availability of quality medicines in adequate quantities at affordable prices, without interruptions in supply.

Medicines management is a multidisciplinary and cooperative process that provides a strategic pathway for strengthening pharmaceutical supply chains, optimizing expenditure, and improving service outcomes through clearly defined performance indicators. However, existing hospital systems continue to face multiple challenges, including insufficient resources, weak monitoring mechanisms, and the absence of standardized policy documentation.

Immediate actions are essential to systematically review, assess, and supervise supply chain operations in order to correct deficiencies and enhance system performance. Special emphasis must be placed on appointing competent and professionally trained personnel in medicines management at all levels of health-care delivery to ensure sustainable improvements in pharmaceutical services.

CONCEPTUAL FRAME WORK
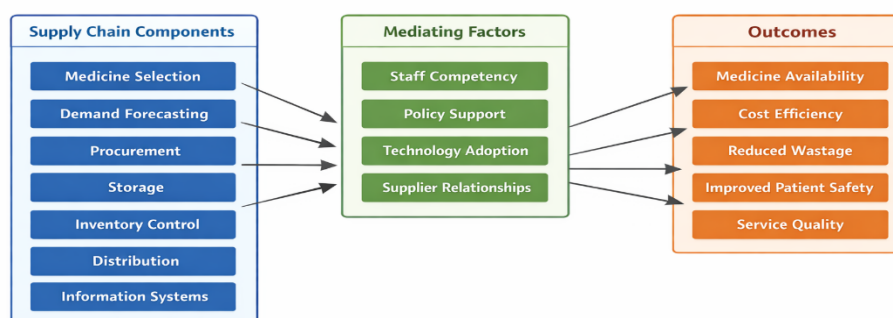
This conceptual framework explains the relationship between supply chain management practices and medicines management outcomes in selected hospitals of Karur district, namely Deepakannan Hospital, Rajinikanth Hospital, and Amaravathi Hospital. The independent variables, which include medicine selection, demand forecasting, procurement, storage, inventory control, distribution, and information systems, represent the core supply chain components influencing medicines management.

These components operate through mediating factors such as staff competency, policy support, technology adoption, and supplier relationships. The effectiveness of these mediating

factors determines how efficiently supply chain activities are transformed into positive outcomes.

The dependent variables reflect the performance of medicines management in hospitals, measured in terms of medicine availability, cost efficiency, reduced wastage, improved patient safety, and service quality. The framework suggests that stronger supply chain practices, supported by skilled personnel and proper policies, lead to better medicines management performance in the selected Karur hospitals.

STATEMENT OF THE PROBLEM

Efficient medicines management is essential for ensuring quality patient care in hospitals. However, many hospitals in Karur District, including Deepakannan Hospital, Rajinikanth Hospital, and Amaravathi Hospital, face challenges in maintaining effective pharmaceutical supply chain systems. Problems such as improper forecasting, delayed procurement, inadequate storage practices, poor inventory control, and limited use of information systems often result in medicine shortages, overstocking, expiry, and increased operational costs.

Additionally, the lack of trained manpower, insufficient policy support, weak technological adoption, and unstable supplier relationships further affect medicines management performance. These issues directly impact medicine availability, patient safety, and service quality. Hence, there is a strong need to develop and analyze a conceptual framework that integrates supply chain management principles with medicines management practices in the selected hospitals of Karur District.

OBJECTIVES OF THE STUDY

Primary Objective

To develop and analyze a conceptual framework for supply chain management in medicines management in Deepakannan Hospital, Rajinikanth Hospital, and Amaravathi Hospital in Karur District.

Secondary Objectives

1. To study the existing medicines management practices in Deepakannan Hospital, Rajinikanth Hospital, and Amaravathi Hospital.
2. To examine the effectiveness of supply chain components such as medicine selection, demand forecasting, procurement, storage, inventory control, distribution, and information systems in the selected hospitals.
3. To identify gaps and challenges in the pharmaceutical supply chain systems of the selected Karur hospitals.
4. To analyze the role of mediating factors such as staff competency, policy support, technology adoption, and supplier relationships in medicines management.
5. To evaluate the impact of supply chain management on medicine availability, cost efficiency, wastage reduction, patient safety, and service quality in the selected hospitals.
6. To compare medicines management performance among Deepakannan Hospital, Rajinikanth Hospital, and Amaravathi Hospital.
7. To suggest suitable strategies for improving medicines management through supply chain integration in Karur District hospitals.

SCOPE OF THE STUDY

Analysis of supply chain processes related to medicines management in Karur hospitals. Identification of gaps in procurement, inventory control, storage, and distribution systems. Development of a conceptual framework integrating supply chain management with medicines management. Evaluation of the role of stakeholders such as pharmacists, administrators, suppliers, and medical staff. Assessment of the impact of supply chain practices on medicine availability, cost efficiency, and patient care. The study is limited to hospital settings in Karur

district and focuses primarily on medicines management systems rather than overall hospital operations.

LIMITATIONS OF THE STUDY

- The study is limited to Karur hospitals only.
- The accuracy of data depends on respondents' opinions.
- Time constraints limited detailed field observations.
- The study focuses only on medicines management, not on total hospital supply chain.

RESEARCH METHODOLOGY

The study adopts a descriptive and analytical research design to examine the supply chain management practices in medicines management in selected hospitals of Karur District. The research focuses on three hospitals: Deepakannan Hospital, Rajinikanth Hospital, and Amaravathi Hospital**.** These hospitals were chosen as they represent key health-care providers in the region and provide a suitable context for analyzing medicines management practices.The population for the study includes pharmacists, store managers, and hospital administrators who are directly involved in the procurement, storage, and distribution of medicines. A sample size of 50 respondents was selected using convenience sampling**,** allowing the researcher to gather data from easily accessible participants while ensuring that those involved in the medicines management process are adequately represented.

Data collection was carried out using both primary and secondary sources. Primary data were collected through a structured questionnaire designed to capture information about supply chain components, mediating factors, and medicines management outcomes. Secondary data were obtained from relevant journals, books, and hospital reports to support and validate the findings.

The study employs simple statistical tools to analyze the data. Percentage analysis is used to present respondents' opinions and satisfaction levels clearly. This methodological approach ensures that the research findings are both descriptive in nature and analytically robust, providing meaningful insights into supply chain management practices in the selected hospitals.

DATA ANALYSIS AND INTERPRETATION

Percentage Analysis of Supply Chain Practice

Supply Chain Component	Satisfactory (%)	Not Satisfactory (%)
Medicine Selection	72%	28%
Demand Forecasting	65%	35%
Procurement	70%	30%
Storage	68%	32%
Inventory Control	60%	40%
Distribution	66%	34%
Information Systems	55%	45%

This table shows that medicine selection has the highest satisfaction level (72%). Procurement and storage practices are moderately satisfactory. Inventory control and information systems show lower satisfaction. Information systems need maximum improvement among all components. This indicates that technology adoption in medicines management is still weak in Karur hospitals.The percentage analysis reveals that medicine selection and procurement practices are comparatively better in Karur hospitals, while inventory control and information systems require significant improvement. The findings show that lack of technological adoption affects medicines management efficiency. Therefore, hospitals must focus on digital inventory systems to enhance supply chain performance. Majority respondents are satisfied with medicine selection practices. Fore casting accuracy is

moderate. Inventory control remains a major challenge. Information systems are insufficiently implemented

Hospital-Wise Comparison of Supply Chain Performance

Hospital	Satisfactory (%)	Not Satisfactory (%)
Deepakannan Hospital	68%	32%
Rajinikanth Hospital	62%	38%
Amaravathi Hospital	60%	40%

The table presents the overall satisfaction levels of supply chain and medicines management practices in the three selected hospitals of Karur District. Deepakannan Hospital, Rajinikanth Hospital, and Amaravati Hospital.

Deepakannan Hospital (68% Satisfactory,32%NotSatisfactory): This hospital shows the highest overall satisfaction among the three, indicating relatively better performance in medicines management and supply chain practices. Stronger procurement processes, proper inventory management, and timely distribution of medicines contribute to higher satisfaction levels. However, 32% of responses indicate areas needing improvement, particularly in technology adoption and monitoring systems.

Rajinikanth Hospital (62% Satisfactory, 38% Not Satisfactory): Rajinikanth Hospital demonstrates moderate satisfaction. While most supply chain functions are being executed satisfactorily, challenges remain in accurate demand forecasting, staff training, and consistent policy implementation. The 38% not satisfactory responses highlight gaps that can affect medicine availability and service efficiency.

Amaravathi Hospital (60% Satisfactory, 40% Not Satisfactory): Amaravathi Hospital has the lowest satisfaction level among the three hospitals. The higher proportion of not satisfactory responses (40%) suggests that the hospital faces considerable challenges in medicines management, including inventory control, storage conditions, and information system utilization. Focused interventions are required to improve supply chain efficiency and patient care outcomes. The analysis indicates that **Deepakannan Hospital** is performing relatively better in supply chain and medicines management, whereas **Amaravathi Hospital** requires urgent attention. Differences in performance across the hospitals can be attributed to variations in staff competency, technology adoption, policy enforcement, and supplier coordination. These findings highlight the need for targeted improvements tailored to each hospital to enhance overall efficiency, reduce wastage, and ensure better patient care.

CONCLUSION

The study concludes that effective supply chain management is essential for improving medicines management in Deepakannan Hospital, Rajinikanth Hospital, and Amaravathi Hospital in Karur District. Strengthening supply chain components and mediating factors will significantly enhance medicine availability, reduce wastage, improve patient safety, and ensure better service quality.

This study has highlighted the critical role of supply chain management in strengthening medicines management practices in Karur hospitals. The proposed conceptual framework demonstrates how coordinated processes such as selection, forecasting, procurement, storage, distribution, and rational use can significantly improve the availability, quality, and affordability of medicines.

The findings indicate that inefficiencies in hospital pharmaceutical supply chains are mainly due to weak policy implementation, limited technological integration, inadequate monitoring mechanisms, and shortage of trained personnel. By adopting a structured supply chain approach, hospitals can reduce medicine wastage, prevent stock-outs, control costs, and enhance patient safety.

Overall, the conceptual framework serves as a strategic tool for hospital administrators and policymakers to redesign medicines management systems in a more systematic,

transparent, and performance-oriented manner. Effective implementation of this framework can contribute to sustainable health-care delivery and improved service quality in Karur hospitals.

SUGGESTIONS

- **Policy Development:** Hospitals should establish well-documented medicines management and supply chain policies.
- **Technology Adoption:** Implementation of digital inventory management and tracking systems should be encouraged.
- **Training Programs:** Regular training must be provided to pharmacists and store personnel on modern supply chain practices.
- **Performance Monitoring:** Key performance indicators should be introduced to monitor stock levels, expiry rates, and procurement efficiency.
- **Supplier Collaboration:** Strong partnerships with reliable suppliers can ensure timely procurement and consistent quality.
- **Audit and Review:** Periodic audits of medicines management systems should be conducted to identify and correct inefficiencies.
- **Government Support:** Policy makers should provide guidelines and financial support for strengthening hospital pharmaceutical supply chains.

FURTHER RESEARCH

- Comparative studies between districts.
- Impact of artificial intelligence in hospital supply chains.
- Role of government policies in pharmaceutical logistics.

AWARENESS AND ADOPTION OF DIGITAL PAYMENT AND FINTECH SERVICES: AMONG COLLEGE STUDENTS

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ABSTRACT

Digital payment systems and Financial Technology (FinTech) services have transformed financial transactions, particularly among college students. This study examines the awareness and adoption of digital payment and FinTech services and analyzes students' perceptions of convenience, speed, accuracy, and security. Primary data were collected from 50 college students using a structured questionnaire. A descriptive research design was adopted, and statistical tools such as Chi-square and regression analysis were used. The findings reveal high awareness and frequent usage of digital payment methods. Perceived benefits significantly influence willingness to adopt FinTech services. The study highlights the growing role of digital payments in shaping students' financial behavior.

KEY WORDS: Digital payment, Financial Technology, awareness and adoption, online transaction, students.

INTRODUCTION

The increasing commonness of Digital payment and FinTech services has transformed the financial landscapes and particularly among the young generation. In recent years, payment and billing processes have increasingly shifted to online systems. These digital platforms offer a convenient and efficient means of completing financial transactions. In everyday life over 50% of individuals rely on online payment methods to settle essential expenses including electricity bills, house rent, television services, academic fees, mobile recharges and other routine payments. This study investigates the awareness and adoption of such services among college students, a group that represents the future consumer base for these technologies.

Digital payment systems offer convenient and efficient however, the security of online transactions remains relatively low. Online scams have become increasingly common, particularly affecting digital payment users. Among the young generation the majority of financial transactions are conducted through applications such as Google pay, PhonePe, Patym, Payoneer and Paypal. Although the use of online wallets reduces the risk of physical theft exposure to cyber fraud and online scams remains a critical issues.

Digital payment and FinTech services enable users to conduct financial transactions anytime and anywhere reducing dependence on cash and physical banking infrastructure. This convenience supports seamless payments for goods, services and bills. The primary purpose of

digital payment systems and financial technology services is to enhance the efficiency, user accessibility, security and universal access of financial transactions by leveraging digital innovation.

These services are modernizing the traditional financial services. Traditional payment methods, including hand written bills and financial records are increasingly being replaced by online systems. Even small stores now provide QR codes for digital payments. Online payment methods also help reduce the need to carry physical cash or cards thereby minimizing the risks associated with handling cash.

This paper examines the awareness and adoption of the digital payment and FinTech services over the traditional transaction methods among the college students. It also analyses how digital transactions are more efficient than conventional payment systems and how they help to reduce the risks of handling cash. This paper also evaluate that how digital payment and FinTech services is provide secure, efficiency, accessibility and inclusive financial ecosystem that facilitates convenient transactions, enhances the transparency and supports sustainable economic growth.

LITERATURE REVIEW

Jeni Theresa Consinga Bona et (2025) studied on the topic of "**Digital Financial Literacy among college students**". The goal of the study was increase college students' understanding of sophisticated financial technology. In summary college students exhibit a high degree of financial literacy and a high awareness of the risk associated with digital finance.

Shreedevi S. Munde (2025) the title of the paper is "**Awareness of Digital Payment System among PG Students**". This study looked into postgraduate students' knowledge of digital payment systems. The results of this study show that most postgraduate students are aware of digital payment systems.

Dr D Renukadevi (2025) studied on the topic of "**Growth of FinTech and Digital Payment in India**". The objective of this study is "To investigate how CSR programs influence consumer behavior, attract socially-conscious customer and lead to customer loyalty and retention". The conclusion is CSR has appeared as a central component for supportable occupational growth. Ultimately CSR not only benefits society but also strengthens the competitive advantage and financial performance of businesses, conducive to overall growth and longstanding success.

Dr. S. B. Sawant et al (2025) studied on "**Integrating AI in FinTech: A multidisciplinary study of student awareness and usage patterns**". The objective of this study is "To evaluate awareness and usage of FinTech services among students". They conclude that this study attempted to understand the level of awareness, perception, usage and challenges for FinTech services in students. The finding also highlights the need for more education and user friendly design, particularly for students who may not have a finance background and are also advancing into increasingly complex FinTech services such as cryptocurrency.

Mohammed A. AI Doghan et (2024) they studied about "**Cyber security awareness and digital banking adoption: exploring the moderating impact of digital literacy**". Through boosting consumer confidence in digital payment the study empirically examined the impactof cyber security awareness, enabling circumstances, individual inventiveness and financial access on fintech adoption. Additionally the moderating function of digital literacy was examined. The results showed that banking trust is positively and significantly impacted by cyber security awareness.

OBJECTIVES

1. To understand the Adoption of digital payment and financial technology services among college students.

2. To analyze student's perceptions regarding the convenience, efficiency and security of digital payment system.
3. To evaluate the relationship between the awareness and adoption of digital payment FinTech services in promoting financial among college students.

SCOPE OF THE STUDY

- The study focuses on the awareness level of digital payment and FinTech services among college students.
- The study examines the adoption and usage of digital payment modes such as UPI, Digital mobile wallets, debit / credit cards and net banking apps.
- The research analyzes the factors influencing adoption of digital payment such as convenience, ease of use, security, speed and accessibility.
- This study compares digital payment with traditional cash based transactions rom students perspective.
- The scope also includes understanding student's attitude towards traditional cash transaction versus digital transaction.

RESEARCH METHODOLOGY

This study uses a descriptive research design to investigate college students knowledge of and use of FinTech services and digital payments. The online survey method was used to gather primary data for the study. Based on the study's goals and pertinent literature a structured questionnaire was created. Statements about convenience, usability, security, effectiveness, difficulties and general adoption of digital payments and FinTech services made up the questionnaire.

A five point likert scale ranging from strongly agree to strongly disagree was used to rate these statements. Google forms was used to create the survey which wass then distributed online via email and social media to undergraduate, postgraduate students and Ph.D. research scholars. This approach was selected because it is economical time efficient and appropriate for gathering information from a big number of respondents. The gathered information was compiled, coded and analyzed.

HYPOTHESES OF THE STUDY

- **Null Hypothesis:**
  a. There is no association between gender and usage of online payment apps.
- **Alternative Hypothesis:**
  a. There is an association between gender and usage of online payment apps

DATA ANALYSIS AND INTERPRETATION

Chi – square:

The Chi-square test was conducted examine the relationship between gender and use of online payment apps.

Test Statistics

	Chi-square	df	Asymp. Sig.
Gender	9.68	1	.002
Use online payment apps	35.28	1	.000

Interpretation:

Chi-square value is 9.68 with 1 degree of freedom and the significance value is 0.002. This is less than the 0.05 level of significance. This indicates that there is a statistically significant associated between gender and the use of online payment apps.

Chi-square value for use of online payment apps is 35.28 with 1 degree of freedom and the significance value is 0.000 which is also less than 0.05. This confirms that the usage of online payment apps among respondents is statistically significant.

Therefore the null hypothesis is rejected it can be concluded that gender has a significant influence on the usage of online payment apps among college students.

HYPOTHESIS

- **Null Hypothesis**

  There is no significant relationship between perceptions of digital payment benefits and willingness to adopt digital payment and FinTech services.

- **Alternative hypothesis:**

  There is significant relationship between perceptions of digital payment benefits and willingness to adopt digital payment and FinTech services.

Analysis

Regression

Overall awareness and willingness to adopt digital payment and FinTech services					
Dependent Variable (Perception of Digital Payment Benefits)	**β (Standardized Coefficient)**	**t-value**	**F-value**	**Sig. (p-value)**	**Result**
Digital payment is more convenient than traditional payment methods	–0.42	–3.18	10.10	0.003	Significant
Digital transactions are faster than traditional payment method	0.55	4.50	20.21	0.000	Significant
Digital transactions are more accurate and transparent	0.70	6.74	45.37	0.000	Significant

Interpretation:

Since the ANOVA significance values are less than 0.05 and the coefficients are statistically significant, the null hypothesis is rejected.

There is a significant relationship between perception of digital payment benefits and willingness to adopt digital payment and FinTech services.

DATA COLLECTION

Primary data:

- In this study, primary data was collected from college students through a structured questionnaire.
- The questionnaire was prepared using Google Forms and circulated online.
- The responses obtained from students regarding their awareness, usage, perceptions and challenges related to digital payment and FinTech services constitute the primary data.

Secondary data:

For this study, secondary data about digital payments, FinTech services and financial technology adoption were gathered from research journals, books, articles, reports, websites, and published paper.

LIMITATIONS OF THE STUDY

- The study is limited to college students and this finding cannot be generalized to other working professionals or other general public.
- This study focuses only on selected digital payment and FinTech services and does not cover all available platforms.
- The sample size is limited which may affect the accuracy and applicability of the results.

SUGGESTIONS

- Improve digital literacy programs to boost awareness and responsible usage.
- Enhance app features for better user experience and security.
- Introduce financial management tools within apps to help track spending.
- Promote digital payment benefits to increase adoption.
- Address technical issues promptly to ensure smooth transactions.

FINDINGS

- Most college students are aware of and actively use digital payment and FinTech services preferring apps like Google Pay, PhonePe and Paytm for their ease and speed.
- Students mainly use digital payments for recharges, online shopping, fee payments and money transfers, valuing convenience, speed and transparency.
- Digital transactions are seen as more efficient and accurate than traditional methods.
- Gender influences digital payment adoption with a significant difference in usage patterns.
- Technical issues and tracking difficulties are common challenges faced by students.

CONCLUSION

The study's conclusion demonstrates how well informed college students are about digital payment methods. The results show that college students are highly aware of the difficulties associated with using digital payment methods. According to the insights digital payment methods are more practical, simple and effective than traditional cash methods. This study demonstrates how using digital transactions lowers the risks involved in handling cash.

The study also indicates that students commonly use digital payment platforms for purposes such as fee payments, online shopping, recharges, and money transfers. Digital transactions were perceived as more transparent and efficient compared to traditional payment methods. However, certain challenges such as technical issues and difficulty in monitoring spending were also reported by some respondents, indicating the need for better financial awareness and user-friendly features in digital platforms.

The Chi-square analysis confirmed a significant association between gender and the usage of online payment applications, highlighting demographic influence on adoption behavior. Overall, the results suggest that digital payment and FinTech services play a vital role in shaping the financial practices of college students and contribute significantly to the advancement of a cash-light economy.

In conclusion, the study emphasizes the importance of promoting digital financial literacy among students to enhance responsible usage and to address existing challenges. Strengthening awareness programs and improving technological infrastructure will further encourage effective adoption of digital payment and FinTech services among the younger generation.

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THE DETERMINANTS OF FINANCIAL RESILIENCE OF MSMEs: A SIZE-SENSITIVE ANALYSIS

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ABSTRACT

The Indian economy has traditionally remained stable, largely powered by small-scale enterprises. In Kerala, this strength is especially visible in the resilience of entrepreneurs who consistently push forward despite challenges. The study examines how different factors help MSMEs handle financial challenges while also considering that the size and type of a business can change what affects their ability to be resilient. PLS-SEM were used to study the factors that affect how well MSMEs can stay financially strong and to find the best combinations of these factors. Using a survey of 371 firms, the research highlights that Resource Bricolage plays a meaningful role in helping small and medium enterprises build financial resilience. Even the smallest businesses benefit from creatively using available resources, with Resource Bricolage emerging as the most influential factor for both small and medium firms. Government Support and Financial Inclusion have a smaller impact. Overall, resilience depends on the enterprise's own ability to adapt, supported by traits like mindset, digital readiness, and strategic planning. Entrepreneurs do not rely on, or wait for, government assistance. It is not the government's role to directly support individual businesses but rather to create an environment that enables and facilitates entrepreneurial growth. The government's duty is to provide the necessary infrastructure, policies, and platforms that help mobilize various forms of support to overcome financial challenges.

KEY WORDS: Financial Inclusion, Financial Literacy, Financial Resilience, Risk, SMEs.
JEL: L26, G32, O16, D81

INTRODUCTION

The Indian economy benefits from one of the largest manpower bases in the world, allowing various groups to focus on their preferred sectors. Each segment has sufficient human capital to secure its position under any circumstances. Farmers ensure the availability of grains and food items; motor companies facilitate the supply of vehicles; infrastructure development is driven by the creatively inclined. Every type of product is manufactured by skilled individuals at minimal cost, while small-scale entrepreneurs who wish to market their talents

invigorate the economy through micro, small and medium enterprises. These ventures address localized needs and gradually expand into neighbouring areas.

As a result, small business units collectively play a vital role in economic development. Financial knowledge and access to financing are essential aspects of effective financial management, helping enterprises avoid crises under challenging conditions. When financial contingencies do arise, external support may be necessary. Although the government offers financial assistance to promote entrepreneurship, the flow of these resources involves a complex hierarchy. If any link in the chain acts adversely, the intended beneficiaries may not receive the support.

Consequently, many entrepreneurs do not rely on government aid. Instead, they seek alternative, immediate solutions by leveraging the resources available to them. They often repurpose existing assets or engage in new ventures that provide short-term benefits. Many adapt by adopting more modern methods and technologies, reducing costs, and generating additional income. Indeed, resource bricolage—a process of creatively utilizing available resources—plays a crucial role in their resilience.

Furthermore, support from close friends and family is often the most dependable and trusted source of aid. Entrepreneurs typically repay such support or maintain strong relationships out of respect and gratitude.

This study identifies and examines various determinants of financial resilience among Micro, Small, and Medium Enterprises (MSMEs). A Systematic Review of Literature approach ensures the relevance and suitability of selected variables derived from prior studies within Kerala's industrial landscape. The study offers insight into how experienced entrepreneurs overcome financial challenges and highlights the most effective support factors. By following similar strategies, emerging entrepreneurs and policymakers can refine their approaches to foster success and stability.

LITERATURE REVIEW

The Indian economic system is enriched with highly qualified human resources and a diverse range of natural resources distributed across different regions. Our climatic conditions are a blessing, as we do not suffer from any extreme weather patterns. The oversupply of manpower allows for the selection of the most skilled and well-suited individuals from a pool of highly qualified candidates. Furthermore, the availability of natural resources empowers individuals to identify their areas of interest or passion, enabling them to establish new enterprises and effectively market their potential.

Small business ventures are the backbone of our economy, and they collectively contribute a significant portion to the GDP. Generally, small enterprises do not require large capital or substantial daily operational funds. However, if they fail to manage their limited business operations effectively, they can quickly fall into financial contingencies. Overcoming financial loss is a complicated and challenging task. Stakeholders do not offer any leniency in payment obligations. Therefore, every enterprise must manage its funds appropriately and develop the necessary skills to handle all possible financial contingencies.

Financial resilience refers to the ability of MSMEs to withstand financial shocks, recover from adversities, and adapt to changing economic conditions (Dalal Aassouli & Habib Ahmed, 2023). It is a multifaceted concept that encompasses financial stability, access to resources, and the capacity to manage risks effectively. Studies have shown that MSMEs with higher financial resilience are better equipped to survive economic downturns and capitalize on growth opportunities (Aassouli & Ahmed, 2023) (Rizki and Hendarman, 2024).

Financial inclusion is a cornerstone of financial resilience. It refers to the access to and usage of formal financial services, such as banking, credit, and insurance, which are essential for MSMEs to manage their finances effectively. Research indicates that MSMEs with higher levels of financial inclusion tend to have better financial performance and

sustainability (Rosyadah et al., 2022) (Fomum & Opperman, 2023) (Gunawan et al., 2023). Financial inclusion also enables MSMEs to access credit, which is crucial for investing in innovation and expanding operations (Chanda, 2024).

Financial literacy is another critical determinant of financial resilience. It refers to the knowledge and skills necessary to make informed financial decisions. Studies have consistently shown that MSMEs with higher levels of financial literacy are more likely to adopt sound financial practices, such as budgeting, saving, and investing, which enhance their financial resilience (Gunawan et al., 2023) (Rahayu et al.2, 023) (Eko, 2022). Financial literacy also empowers MSMEs to navigate complex financial systems and make informed decisions about financial products and services (Akpuokwe et al., 2024) (Al-Shami et al., 2024).

Government support plays a pivotal role in enhancing the financial resilience of MSMEs. This support can take various forms, including access to funding, tax incentives, and business training programs. Research has shown that MSMEs that receive government support are more likely to survive economic crises and achieve long-term sustainability (Kurniawan et al., 2023) (Waldan and Asma, 2022) (Supari & Anton, 2022) (Najib et al., 2021) (Gupta & Kumar Singh, 2023) (Tirtayasa et al., 2021).

Resource bricolage refers to the ability of MSMEs to creatively utilize available resources to achieve their goals. This concept is particularly relevant in the context of financial resilience, as MSMEs often operate with limited resources. Studies have shown that MSMEs that engage in resource bricolage are more likely to innovate and adapt to changing market conditions, which enhances their financial resilience (Abid et al., 2023) (Simba et al., 2021) (Hashim et al., 2024).

Social capital is the network of relationships and trust that MSMEs can leverage to access resources, information, and support. It is a critical factor in building financial resilience, as it provides MSMEs with access to informal credit, mentorship, and market opportunities. Research has shown that MSMEs with strong social capital are more likely to survive economic shocks and achieve long-term sustainability (Safii & Rahayu, 2021) (Waldan and Asma2022).

The relationship between financial resilience and the independent variables may vary depending on the size of the MSME. For example, smaller MSMEs may be more vulnerable to financial shocks due to limited resources and access to credit. However, they may also be more agile and able to adapt quickly to changing market conditions. On the other hand, larger MSMEs may have more resources and access to formal financial services, which can enhance their financial resilience.

By understanding the relationship between these variables, policymakers and practitioners can design interventions that enhance the financial resilience of MSMEs. This, in turn, can contribute to the sustainability and growth of MSMEs, which are critical to the economic development of many countries.

OBJECTIVE OF THE STUDY

- To examine the impact of various determinants of financial resilience across micro, small, medium enterprises.

METHODOLOGY

This study used a step-by-step approach that combined both qualitative and quantitative research methods to explore the main factors that affect financial resilience in Micro, Small, and Medium Enterprises (MSMEs) in Kerala, focusing on how these factors differ based on the size of the business. The research was carried out in two distinct phases: first, a qualitative exploration, followed by a quantitative validation phase.

The initial phase involved an exhaustive review of the relevant literature, including scholarly articles, policy reports, and local publications, to identify potential factors influencing financial resilience. Building on this foundational review, the study adapted survey questions from established research that closely aligned with insights gained from in-depth interviews

conducted with 30 entrepreneurs. Through this process, five critical factors that impact financial resilience were identified: financial inclusion, financial literacy, government support, resourcefulness, and social networks.

A quantitative survey of 371 Micro, Small, and Medium Enterprises (MSMEs) was conducted in the next stage of the study across various regions of Kerala. The multi-stage sampling method was used to select samples from both rural areas and established industrial estates. The collected data were analyzed using Structural Equation Modeling (SEM).

DATA ANALYSIS

The study used PLS-SEM to explore how five key factors—Resource Bricolage, Financial Literacy, Social Capital, Government Support, and Financial Inclusion—affect financial resilience across Micro, Small, and Medium Enterprises. By analyzing the structural model, the study reveals distinct pathways through which these factors influence financial resilience, highlighting the contextual and structural differences between enterprises of varying sizes.

Measurement model Analysis

The reliability check showed that all constructs used in the study were consistent and dependable. Cronbach's alpha values ranged from 0.796 for Resource Bricolage (RB), which is acceptable, to higher values like 0.941 for Financial Literacy (FL), 0.952 for Financial Resilience (FR), and 0.954 for Government Support (GS). These results indicate that the items grouped under each construct reliably measured the same idea. Composite reliability scores (rho_A and rho_C) also exceeded the standard cutoff of 0.7 for all constructs, further confirming strong internal consistency.

When looking at validity, the Average Variance Extracted (AVE) values for each construct were all above 0.5, which means the constructs captured a satisfactory amount of the variance in their indicators, showing strong convergent validity. In simple terms, the constructs were doing a good job of measuring what they were meant to.

To make sure each construct was unique and not overlapping with others, discriminant validity was assessed using two methods: the HTMT ratio and the Fornell-Larcker criterion. All HTMT values stayed well below the thresholds of 0.85 or 0.90, which is a positive sign. The Fornell-Larcker method compared the square roots of AVE with correlations between constructs, and it confirmed that each construct stood apart from the rest. Together, these tests showed that the constructs were distinct and valid.

Multi collinearity wasn't an issue either. The Variance Inflation Factor (VIF) values, which look for repeated information among predictors, were all well below the important limit of 5—mostly between 1.1 and 4.9—showing that there was no significant overlap between the variables.

As for model fit, several tests were used. The SRMR (Standardized Root Mean Square Residual) was 0.054 for both the saturated and estimated models, which is well below the acceptable limit of 0.08, and shows a good fit. Other measures like d_ULS (1.937), d_G (0.625), and Chi-square (1461.874), along with an NFI (Normed Fit Index) of 0.887, also suggested that the model aligns well with the data. An NFI value close to or above 0.90 is generally considered strong, so this result is quite solid.

In summary, the model was shown to be trustworthy and accurate, with clear and separate ideas, no major multi collinearity issues, and a strong overall fit making it good for more detailed analysis.

Structural Equation Modeling Analysis

The complete model examination for all MSMEs (Micro, Small, and Medium Enterprises) reveals that Resource Bricolage (RB) is the most significant driver of Financial Resilience (FR) across all sizes of enterprises, with a highly significant path coefficient of 0.000. This highlights the crucial role of creative resource utilization in strengthening resilience, regardless of firm

size. Social Capital (SC) also contributes positively to resilience, with a path coefficient of 0.199, emphasizing the importance of networks, trust, and community ties in overcoming financial challenges. Government Support (GS) shows a moderate positive effect ($\beta = 0.215$), indicating that supportive policies and interventions have a role in boosting resilience, although their influence is less pronounced compared to resourcefulness and social networks. In contrast, Financial Inclusion (FI) and Financial Literacy (FL) have minimal or no significant impact on resilience, with path coefficients of 0.000 and 0.090, respectively. This suggests that while access to financial services and financial knowledge may provide some benefits, they are not major determinants of financial resilience for MSMEs in this study.

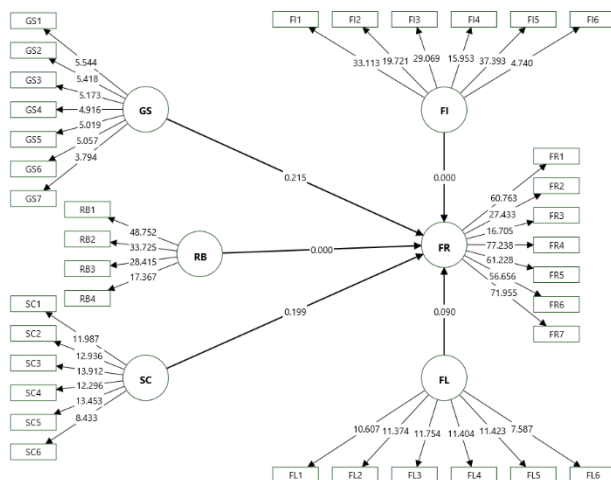**Figure - 2:** Structural Model - *Determinants Financial Resilience of MSMEs. (Complete)*

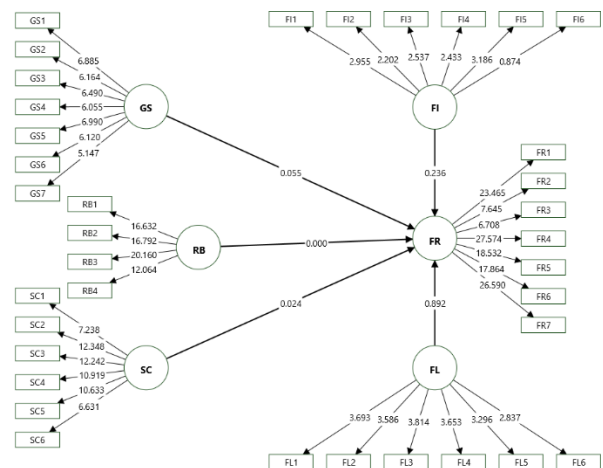**Figure - 3:** Structural Model - *Determinants Financial Resilience of Micro Enterprises.*

Figure - 4: Structural Model - *Determinants Financial Resilience of Small Enterprises.*
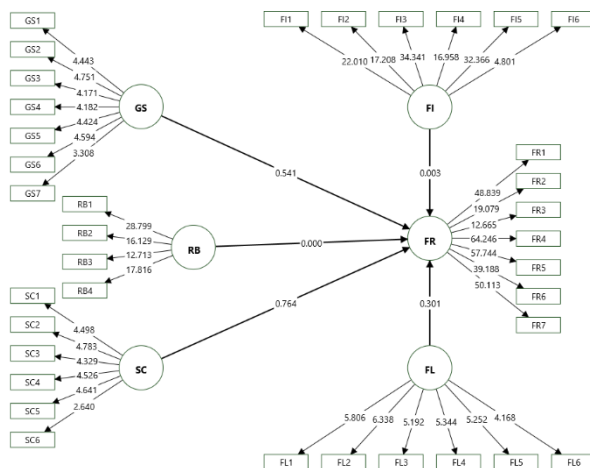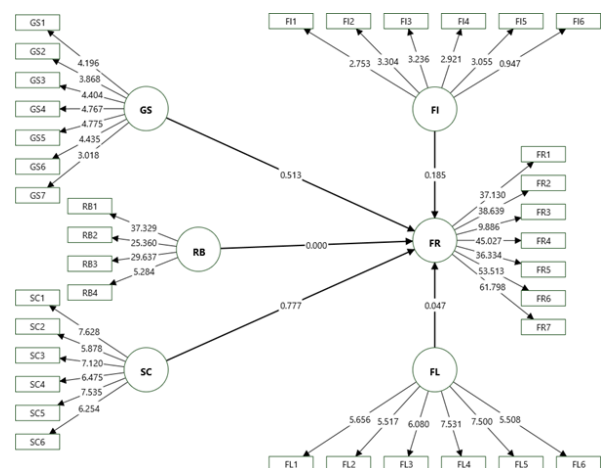

Figure - 5: Structural Model - *Determinants Financial Resilience of Medium Enterprises.*

A study examining the financial resilience of Micro, Small, and Medium Enterprises found that creative resource utilization and social networks are key drivers, while government support plays a secondary role, and financial factors have a limited impact. The relationships between these factors and financial resilience may vary across different scales of operation. Specifically, for micro-enterprises, the study indicated that resource bricolage had the most substantial impact on financial resilience, followed by social capital. Government support

showed a moderate positive effect, while financial inclusion and financial literacy had weak or non-significant effects. This suggests that creatively leveraging available resources and strong community ties are more critical for resilience in micro-enterprises than access to financial services or financial knowledge alone.

In small enterprises, resource bricolage was also identified as the strongest factor influencing financial resilience. Financial inclusion had a positive and statistically significant impact, highlighting the importance of access to financial services. In contrast, financial literacy, government support, and social capital had minimal direct effects on resilience in small enterprises, suggesting possible indirect or moderating roles.

For medium enterprises, Resource Bricolage (RB) emerged as the most significant factor influencing financial resilience, with a strong path coefficient of 0.594 (t-value = 10.167, p = 0.000). This highlights how the ability to creatively use available resources plays a crucial role in strengthening resilience.

Financial Literacy (FL) also had a significant positive impact (β = 0.161, t-value = 2.037, p = 0.042), indicating that financial knowledge is key to helping medium enterprises navigate financial challenges. Unlike smaller firms, medium enterprises appear to leverage financial literacy more effectively due to better organizational structures and decision-making.

In contrast, Financial Inclusion (FI), Government Support (GS), and Social Capital (SC) had minimal or no significant effects. FI showed a moderate effect (β = 0.172, p = 0.180), while GS (β = 0.066, p = 0.526) and SC (β = 0.018, p = 0.782) had negligible influence. This suggests that medium enterprises may rely more on internal resources rather than external networks or support systems, potentially due to their more developed infrastructure and a mismatch between available support and their specific needs.

Path Analysis: The path analysis highlights the overall statistical significance of each construct and further disaggregates the results across enterprise categories, offering critical insight into the heterogeneous nature of resilience determinants within the MSME sector. In the previous part of the analysis explain the influence according to the size of the firm. Here, the results were analysed on the based on each hypothesis and it explain the role of each construct on financial resilience more specifically.

Table 1

Path Analysis result

Path	P-Value & Result
FI -> FR	**0.000**** Highly Significant
	Micro: 0.236 Not significant
	Small:0.003** Highly Significant
	Medium: 0.185 Not significant
FL -> FR	**0.090** Not significant
	Micro: 0.892 Not significant
	Small: 0.301 Not significant
	Medium: 0.047* Significant
GS -> FR	**0.215** Not significant
	Micro: 0.55 Not Significant
	Small: 0.541 Not significant
	Medium: 0.513 Not significant
RB -> FR	**0.000**** Highly Significant
	Micro: 0.000** Highly Significant
	Small: 0.000** Highly Significant
	Medium: 0.000** Highly Significant

	0.199 Not significant
SC -> FR	**Micro: 0.024*** Significant
	Small: 0.764 Not significant
	Medium: 0.777 Not significant

Starting with Financial Inclusion (FI), the overall path coefficient (p = 0.000) supports Hypothesis 1, suggesting a statistically significant and positive effect of financial inclusion on the financial resilience of MSMEs. However, a breakdown by firm size reveals variation: the relationship is highly significant for small enterprises (p = 0.003) but not significant for micro (p = 0.236) and medium (p = 0.185) enterprises. This implies that small enterprises, which may be in the growth phase with formalized operations, benefit the most from access to financial services like banking, credit, and insurance. Micro enterprises might still be embedded in informal economies, while medium enterprises may already have adequate access and thus show a plateau effect.

Financial Literacy (FL), associated with Hypothesis 2, shows an overall non-significant relationship with financial resilience (p = 0.090). The effect is non-significant for both micro (p = 0.892) and small enterprises (p = 0.301), yet it becomes significant for medium enterprises (p = 0.047). This suggests that financial literacy becomes increasingly critical as businesses scale, possibly due to more complex financial operations and decision-making in medium-sized firms. These findings underline the importance of targeted financial literacy programs that cater specifically to the needs of larger MSMEs, where the impact is more tangible.

For Government Support (GS), Hypothesis 3 is not supported in any category. Despite an overall path coefficient of 0.215, the p-values for micro (0.550), small (0.541), and medium enterprises (0.513) are all non-significant. This raises concerns about either the accessibility or the effectiveness of government schemes across the board. While policy frameworks may exist, these findings imply they are not sufficiently reaching or addressing the practical needs of MSMEs. There may also be implementation gaps, bureaucratic hurdles, or mismatches between policy design and enterprise realities.

Resource Bricolage (RB) stands out as the strongest predictor across the entire sample and all three enterprise categories, fully supporting Hypothesis 4. The relationship is highly significant (p = 0.000) for micro, small, and medium enterprises alike. This consistent effect suggests that the creative and adaptive use of limited resources is a universally valuable capability for MSMEs. Regardless of scale, the ability to improvise, reconfigure, and leverage underutilized assets contributes substantially to resilience during financial distress. This insight underscores the importance of entrepreneurial agility and innovation in resource management.

Finally, Social Capital (SC) provides mixed support for Hypothesis 5. While the overall effect is not statistically significant (p = 0.199), it becomes significant for micro enterprises (p = 0.024). The relationship is non-significant for both small (p = 0.764) and medium (p = 0.777) firms. This suggests that micro-enterprises, which often operate in tightly knit communities and depend heavily on informal networks, derive significant resilience from social trust, mutual support, and relational ties. As firms grow and formalize, reliance on informal networks might diminish, reducing the apparent influence of social capital on financial resilience.

In conclusion, the results highlight the importance of disaggregating data by enterprise size when analyzing financial resilience. The determinants vary significantly across micro, small, and medium enterprises—what works for one segment may not apply to another. Resource Bricolage emerges as a universal strength, while Financial Inclusion and Financial Literacy show segment-specific impacts. Government Support and Social Capital, on the other hand, exhibit weak or inconsistent effects, pointing to areas where policy and practice may need reassessment.

Micro enterprises lean heavily on internal creativity and social networks to navigate financial uncertainty. Small enterprises benefit from formal financial inclusion mechanisms as

they transition into more structured operations. Medium enterprises, with relatively better infrastructure and strategic capacity, leverage financial literacy and resource bricolage as key resilience strategies. Moreover, the findings challenge the one-size-fits-all approach often embedded in MSME policies, advocating instead for differentiated interventions tailored to enterprise size and operational complexity.

CONCLUSION

Micro, Small, and Medium Enterprises have historically been the cornerstone of the Indian economy, demonstrating remarkable resilience and adaptability, particularly in Kerala's challenging industrial landscape. This study uses Partial Least Squares Structural Equation Modeling to carefully examine how financially stable and resilient these businesses are when they encounter challenges. The findings indicate that financial resilience is a multifaceted concept, shaped by numerous factors that vary based on the enterprise's size, nature, and context. These insights have important implications for understanding the dynamics of MSMEs in Kerala and their vital role in fostering economic development and sustainability.

For microenterprises, internal resources like Resource Bricolage and Social Capital are particularly salient. This illustrates the value of entrepreneurial resourcefulness and leveraging local community networks to navigate financial challenges. However, Financial Inclusion and Financial Literacy had a limited direct impact, suggesting that they may require complementary strategies or be better adapted to the local context. Government Support yielded varied outcomes, which brought attention to more targeted and accessible policy initiatives. Entrepreneurs in this segment often initiate their businesses independently, demonstrating strong self-reliance. The government's role should focus on creating an enabling environment rather than direct intervention, including improving access to banking, infrastructure, and networking opportunities. Given that bureaucratic processes can impede direct aid, local financial institutions and community networks are often better positioned to provide timely support. Therefore, the government should prioritize developing essential infrastructure and platforms that facilitate entrepreneurial growth and connectivity within their local ecosystems.

In the context of small enterprises, Resource Bricolage remains important, but Financial Inclusion becomes more influential. This transition suggests that as these businesses expand, they increasingly rely on formal financial services. Simultaneously, the influence of social connections and government assistance diminishes as these firms transition from informal coping mechanisms to more formalized financial planning.

Medium-sized enterprises continue to benefit from Resource Bricolage and exhibit a stronger correlation with Financial Literacy. Other factors, such as Financial Inclusion, Social Capital, and Government Support, have reduced influence, indicating that these businesses are more capable of independently managing financial risks and require less external assistance.

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THE FACTORS INFLUENCING ENTREPRENEURIAL DECISION-MAKING PROCESS AMONG ENTREPRENEURS

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ABSTRACT

Entrepreneurial decision-making is influenced by a variety of factors, ranging from particular traits and environmental influences to cognitive processes. This paper investigates the crucial factors impacting the decision-making processes among entrepreneurs, specifically fastening on personal, environmental, and cognitive factors. Data were collected through a survey of 50 entrepreneurs across different industries. The analysis revealed significant correlations between personal confidence, market trends, economic conditions, and decision-making styles in entrepreneurship. The findings suggest that entrepreneurs with high threat forbearance, access to market data, and cognitive flexibility are more likely to make informed decisions, which contribute to business success.

KEYWORDS: Entrepreneurial Decision Making, Threat Forbearance, Market Dynamics, Cognitive Styles, Personal Traits

INTRODUCTION

Entrepreneurship is a dynamic and complex process that requires individualities to make decisions that will determine the success or failure of their ventures. Entrepreneurs are faced with challenges that require risk management, innovative problem-solving, and the capability to adapt to rapidly changing surrounding. Understanding the factors that influence entrepreneurial decision-making is critical to fostering a robust entrepreneurial ecosystem.

REVIEW OF RELATED LITERATURE

Entrepreneurial decision-making is a multidisciplinary field, and scholars have examined various factors that contribute to effective decision-making in entrepreneurship. According to McMullen and Shepherd (2006), entrepreneurial decisions are often influenced by a combination of personal traits, external market conditions, and cognitive impulses. Personal traits, including self-confidence and threat forbearance, are often associated with a greater willingness to pursue new business opportunities (Stewart & Roth, 2001).

In terms of environmental factors, previous studies have emphasized the importance of market demand, economic conditions, and network connections. For case, entrepreneurial decisions are often driven by an entrepreneur's access to funding and mentorship, as well as the regulatory

entrepreneurial activities by influencing opportunities and market accessibility. Cognitive factors, such as the capability to process information, analyze market data, and solve problems creatively, also play a significant part in entrepreneurial decision-making. According to Mitchell et al. (2002), entrepreneurs with a proactive decision-making style and a high forbearance for ambiguity are better equipped to make decisions in uncertain surroundings.

OBJECTIVES

1. To understand how personal factors, such as threat forbearance, confidence, and traits, influence entrepreneurial decision-making.
2. To examine the part of environmental factors, such as market dynamics, economic conditions, and social networks, in shaping entrepreneurial opportunities and decisions.
3. To investigate how cognitive factors, such as decision-making styles, problem-solving skills, and information processing, contribute to entrepreneurial actions.

RESEARCH METHODOLOGY

The research employed a survey-based approach to gather data from 50 entrepreneurs across various industries, including technology, manufacturing, retail, and services. The respondents were selected through convenience sampling and represented a mix of male and female entrepreneurs, aged between 20 and 54 years. The survey focused on personal, environmental, and cognitive factors that influence decision-making. The responses were analyzed using descriptive statistics to identify trends and patterns. The survey was divided into four key sections:

1. Demographic Factors
2. Personal Factors (threat forbearance, confidence, etc.)
3. Environmental Factors (market trends, access to funding, etc.)
4. Cognitive Factors (problem-solving, decision-making style, etc.)

DATA ANALYSIS AND INTERPRETATION

This section presents the results from the data analysis and interprets the findings in the context of the objectives of the study, which aim to explore the factors influencing entrepreneurial decision-making. The three main categories of factors influencing decision-making among entrepreneurs — personal factors, environmental factors, and cognitive factors — are discussed based on the survey results, presented in the tables below.

Demographic Factors

Table 1
Shows the Demographic Characteristics of the Respondents.

Particular	No of Respondents	Percentage
Age		
Under 25	25	51%
25-34	24	47%
35-44	0	1%
45-54	1	1%
55+	0	0%
Total	50	100%
Educational Level		
High school	2	2%
Undergraduate	19	40%
Post Graduate	27	55%
Doctoral Degree	2	3%
Other	0	0%
Total	50	100%
Gender		
Male	34	65%

Female	16	35%
Total	50	100%
Industry Type		
Technology	25	46%
Manufacturing	4	12%
Retail	1	4%
Service	5	11%
Other	15	27%
Total	50	100%
Business Ownership		
Sole proprietorship	10	23%
Partnership	7	11%
Limited Liability	0	0%
Corporation	11	25%
Not applicable	22	41%
Total	50	100%
Industry Type		
Technology	25	46%
Manufacturing	4	12%
Retail	1	4%
Service	5	11%
Other	15	27%
Total	50	100%
Business Ownership		
Sole proprietorship	10	23%
Partnership	7	11%
Limited Liability	0	0%
Corporation	11	25%
Not applicable	22	41%
Total	50	100%
Years in Business		
Less than 1 year	25	51%
1-3 years	19	41%
4-6 years	3	5%
7+ years	3	3%
Total	50	100%
Size of Business		
Micro (1-5 employees)	23	47%
Small (6-50 employees)	18	35%
Medium (51-250)	5	11%
Large (251+ employees)	4	7%
Total	50	100%

Interpretation: The majority of entrepreneurs are young (under 25 years of age), which reflects the rising trend of younger individuals entering the entrepreneurial landscape. Most respondents had either an undergraduate or postgraduate level of education, suggesting that educational background plays a significant role in entrepreneurship. The gender distribution shows a predominance of male entrepreneurs (65%), indicating a gender disparity in the entrepreneurial space. Additionally, most entrepreneurs operate in the technology sector (46%), a field that aligns with current global economic shifts towards digital innovation. Furthermore, 51% of respondents were relatively new to entrepreneurship, with less than one year in business, and most operated small businesses with 1-5 employees.

Personal Factors

Table 2

Presents the Responses Related to Personal Factors Influencing Entrepreneurial Decision-Making.

Statements	SD	D	N	A	SA	Total
I am willing to face uncertainty and potential failure when making entrepreneurial decisions.	4	1	14	22	9	50
I am confident in my ability to make important decisions for my business.	2	2	6	22	18	50
I am comfortable taking calculated risks in business decisions.	1	1	14	25	9	50
I believe that risk-taking is an essential part of growing a business.	4	1	9	20	16	50
I trust myself to find solutions to the challenges that arise in business.	1	4	9	22	14	50
I believe I have the necessary skills and knowledge to manage a business successfully.	2	1	10	23	14	50
I am highly organized and prefer to plan and structure my business activities.	2	2	9	23	14	50
I am open to trying new ideas and approaches to solve problems in my business.	1	1	12	23	13	50
I am an outgoing person who enjoys interacting with others in business settings.	4	2	12	17	15	50

Interpretation: The results suggest that entrepreneurs possess a high level of confidence and are generally comfortable with risk-taking.

The majority of respondents agreed that they are willing to face uncertainty and potential failure in their decision-making (62%), which indicates a strong threat forbearance in entrepreneurship. Entrepreneurs also reported being confident in their abilities to make business decisions (80%) and trust their problem-solving skills (72%).

This highlights the importance of self-confidence and problem-solving in entrepreneurial decision-making. Moreover, a majority (74%) expressed a preference for planning and structure, which suggests that despite the risk-taking nature of entrepreneurship, these individuals value organized and structured approaches to business management.

Environmental Factors

Table 3

Presents the Responses Regarding the Influence of Environmental Factors on Decision-Making.

Statements	SD	D	N	A	SA	Total
I base my business decisions on current market demand and trends.	2	1	13	20	14	50
I regularly analyze market competition to identify opportunities for my business.	3	2	10	25	10	50

	SD	D	N	A	SA	Total
Market stability and trends significantly impact my decision-making process.	1	2	14	21	12	50
Access to funding is a crucial factor when making business decisions.	1	2	18	17	12	50
Government policies and tax regulations influence my entrepreneurial decisions.	1	1	18	22	8	50
Economic factors, such as inflation or interest rates, affect my decisions to invest or expand my business.	2	0	12	23	13	50
I rely on my professional network to provide advice and support for business decisions.	4	1	12	24	9	50
I actively seek mentors who can guide my business decision-making process.	2	3	13	21	11	50
I value relationships with peers and business partners when making strategic decisions.	3	3	9	23	12	50

Interpretation: The results indicate that market demand and trends are key drivers in entrepreneurial decision-making.A significant majority (68%) of entrepreneurs base their decisions on market trends and competition. Moreover, access to funding and economic conditions were also crucial for making decisions related to business expansion and investment. About 58% of respondents agreed that funding plays a crucial role in their decisions, highlighting the need for financial resources to scale businesses. Government policies and tax regulations were also seen as important factors, indicating that external factors play a vital role in shaping business strategies.

Cognitive Factors

Table 4
Presents the Responses Related to Cognitive Factors Influencing Entrepreneurial Decision-Making.

Statements	SD	D	N	A	SA	Total
I make business decisions based on a detailed analysis of data and facts	1	4	10	26	9	50
I rely on my intuition when making important business decisions	2	1	15	23	9	50
I often combine both analytical thinking and intuition when making decisions for my business	2	2	9	27	10	50
I enjoy finding creative solutions to challenges and obstacles in my business	1	2	18	21	8	50
I prefer to tackle complex business problems on my own rather than seeking external help	3	1	13	26	7	50
I believe that overcoming problems and setbacks is a crucial part of growing my business	1	1	10	29	9	50

I am able to quickly analyze and interpret market data to make informed business decisions	1	1	11	24	13	50
I actively seek out new information and market research to guide my business decisions	1	3	13	22	11	50
I use both qualitative and quantitative data to assess business opportunities and risks	1	0	13	24	12	50

Interpretation: The cognitive factors reveal that most entrepreneurs adopt a balanced approach when making decisions, combining both analytical thinking and intuition. A majority (74%) reported relying on both data-driven analysis and gut feelings when making business decisions. This suggests that while analytical thinking is important, intuition and experience also play a significant role. Additionally, many entrepreneurs (66%) emphasized the importance of overcoming setbacks, reflecting the resilience required in the entrepreneurial journey. Another key finding is that a majority (78%) of entrepreneurs actively seek new information and market research to guide their decisions, showing a proactive approach toward business growth and risk management.

FINDINGS

The analysis of personal, environmental, and cognitive factors reveals several critical insights that can guide future entrepreneurial strategies and decision-making: Personal factors, such as confidence and risk tolerance, are foundational to entrepreneurial success. Entrepreneurs in this study demonstrated a strong sense of self-belief in their decision-making abilities, and a high level of comfort with risk-taking. This aligns with previous literature that suggests entrepreneurs must possess high levels of self-efficacy and a willingness to take calculated risks. Environmental factors highlight the significance of external elements like market trends, funding access, and government policies in shaping entrepreneurial decisions. Entrepreneurs place significant emphasis on market demand and economic factors, as well as the support they receive from their professional network and mentors. This underscores the need for external support mechanisms to foster entrepreneurial growth. Cognitive factors reflect the complex decision-making process that blends data analysis with intuition. Entrepreneurs who use both qualitative and quantitative methods to assess risks and opportunities are more likely to succeed in volatile markets. The preference for creative problem-solving and resilience in the face of setbacks demonstrates the importance of adaptive thinking in entrepreneurship. These factors collectively contribute to an entrepreneur's ability to make informed, strategic decisions that are crucial for sustaining and growing a business. Entrepreneurs who embrace risk while leveraging external resources, market data, and cognitive flexibility are more likely to navigate the complexities of business successfully.

CONCLUSION

The findings of this study indicate that personal, environmental, and cognitive factors play a crucial role in shaping the entrepreneurial decision-making process. Entrepreneurs who are confident, risk-tolerant, and open to new ideas tend to make more informed and strategic decisions. Additionally, the influence of market trends, economic conditions, and access to funding is significant in shaping entrepreneurial opportunities and decision-making. Understanding these factors can help policymakers, educators, and investors provide better support to entrepreneurs, particularly by fostering an environment that encourages innovation, risk-taking, and informed decision-making. Future research should explore the long-term impact of these factors on entrepreneurial

success and failure.

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WHY DIGITAL PAYMENTS ARE THE FUTURE OF INCLUSION

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ABSTRACT

The global financial landscape is undergoing a paradigm shift as digital payment systems and Fintech innovations displace traditional banks models. This research explores the transformative potential of digital payments as a primary vehicle for achieving universal financial inclusion. While traditional brick and mortar banking has historically failed the "last mile" due to high potential operational costs and rigid documentation barriers, Fintech offers a scalable, low-cost alternative. The central purpose of this study is to evaluate how mobile-first financial ecosystems democratize access to capital and financial security for previously marginalized and unbanked populations.

KEYWORDS: Fintech, Digital Payments, Financial Inclusion, Mobile Money, Unbanked, Digital Literacy.

INTRODUCTION

Financial inclusion is the cornerstone of sustainable economic development. It ensures that individuals and businesses have access to useful and affordable to useful and affordable financial products. Historically, "being banked" required physical proximity to a brick and mortar branch. However, the Fintech revolution has decoupled banking from banks. Through smart phones and high speed internet, digital payments have become the primary gateway for the underserved to save, borrow and insure against risk.

STATEMENT OF THE PROBLEM

Despite global growth, billions of people remain "unbanked" or "under banked". Traditional banking infrastructure is often too expensive to deploy in rural areas, and strict documentation requirements (KYC) often bar low-income earners. Without access to digital payments, these individuals remain trapped in a cash-only cycle, limiting their ability to build or receive government subsidies efficiently. The core problem is that while technology exists to bridge the financial gap, systematic barriers such as infrastructure deficits, security fears and literacy gaps-prevent digital payments from becoming a universal tool for inclusion. Without

addressing these specific friction points, the transition to a truly inclusive digital economy will remain incomplete.

REVIEW OF LITERATURE

Kushwaha & Malpani (2025)[1] in their empirical analysis, researcher explored the impact of Fintech on financial inclusion in India. They utilized a multidimensional index and advanced econometric technique to establish that Fintech adoption-specifically mobile money and digital wallets-significantly improves banking access. Their research highlights that while urban areas show higher saturation, the most significant growth is occurring in rural segments where physical infrastructure is lacking.

Trivedi & Agnihotri (2025)[2] This study evaluates government-led initiatives like "Digital India," "Aadhaar," and "UPI." Trivedi and Agnihotri (2025) argue that India's public digital infrastructure model is a global benchmark for inclusive growth. They found that real-time payment systems have substantially expanded access to formal services for street vendors and small-scale businesses, though rural digital literacy remains a bottleneck.

Amnas, Selvam, & Parayitam (2024)[3] Through a survey of 608 Indian FinTech users, this study identified trust and perceived security as the most critical mediators for sustained FinTech adoption. Their findings suggest that for digital payments to truly drive inclusion, users must perceive the regulatory support as robust enough to protect them from digital fraud.

Chauhan & Sharma (2024)[4] This bibliometric analysis of global and Indian trends revealed that India has become a "FinTech powerhouse" with over 9,000 FinTech companies. The authors document how the volume of UPI transactions grew from 83 billion in 2023 to over 131 billion in 2024, shifting the Indian economy away from paper-based transactions toward a "cash-lite" digital society.

Ghosh (2022)[5] Ghosh examined the role of Digital Public Infrastructure (DPI) in deepening financial access. The study confirms that the "India Stack" (Aadhaar, e-KYC, and UPI) has revolutionized financial access by lowering the cost of on boarding new customers, which allows banks to serve low-income individuals who were previously considered "unprofitable."

Ayeni (2025)[6] Ayeni analyzed fintech solutions across various developing countries, concluding that digital financial services are essential for sustainable economic growth. The study emphasizes that mobile money acts as a catalyst for poverty reduction by allowing marginalized households to save and invest in small-scale entrepreneurial activities with minimal transaction costs.

Ozili (2025)[7] In a global overview of digital financial inclusion, Ozili highlights that digital technologies are being used to bring the approximately two billion "unbanked" adults into the formal system. The research notes that while Africa leads in mobile money innovation (M-Pesa), the transition to digital ecosystems is becoming a universal welfare tool that offers positive benefits to governments and households alike.

Dario & Figueiredo (2024)[8] This systematic literature review discusses the dual nature of FinTech. While finding it overwhelmingly beneficial for financial inclusion, the authors warn of risks to financial stability. They argue that for FinTech to be a permanent inclusion tool, international regulators must harmonize policies to prevent systemic risks while encouraging innovation in emerging markets.

Agarwal & Assenova (2023)[9] Published through Knowledge at Wharton, this study focuses on how mobile money platforms fill "institutional voids" in credit markets. By creating a digital record of financial activities, these platforms allow lenders in developing nations to assess the creditworthiness of individuals who lack traditional credit histories, thus providing them with their first formal loans.

Demirgüç-Kunt et al. (World Bank, 2021)[10] The Global Findex Database 2021 is a seminal international study that provides evidence of the pandemic-driven surge in digital

payments. It found that in developing economies, the share of adults making or receiving digital payments rose from 35% in 2014 to 57% in 2021, proving that digital tools are the most resilient way to provide financial services during global crises.

RESEARCH GAP

The core research gap identifies in existing literature reveals a transition from mere infrastructure availability to the complexities of behavioral and socio-economic integration. While current studies extensively document the exponential rise in transaction volumes and the successful deployment of the "India Stack," there remains a significant lack of empirical evidence regarding the long term transformation of financial health and actual usage depth among the rural unbanked. Most research focuses on the technical "onboarding" of users but fails to address the psychological resistance involved in moving from tangible cash to invisible digital assets, the specific credit-linkage mechanisms for informal micro-entrepreneurs, and the true extent of financial autonomy gained by women in digital ecosystems. This study bridges these gaps by shifting the focus from quantitative account ownership to a qualitative analysis of how digital footprints are being utilized to build financial identities and overcome the systemic trust deficits that persist in the "last mile" of the digital economy.

OBJECTIVES OF THE STUDY

- To analyze the impact of digital payment adoption on financial accessibility.
- To identify the primary barriers preventing total digital financial inclusion
- To evaluate the correlation between smart phone penetration and financial participation.

HYPOTHESIS OF THE STUDY

H_1: There is a significant positive correlation between the availability of digital payment platforms and the rate of financial inclusion in rural areas.

H_2: Digital literacy acts as a primary moderator in the successful adoption of FinTech services.

RESEARCH METHODOLOGY

Research Design: A descriptive and analytical research design was adopted using a mix of primary survey data and secondary reports (world bank/global findex)

Sampling technique: Stratified Random Sampling

Sampling size: 200 participants (100 urban and 100 rural)
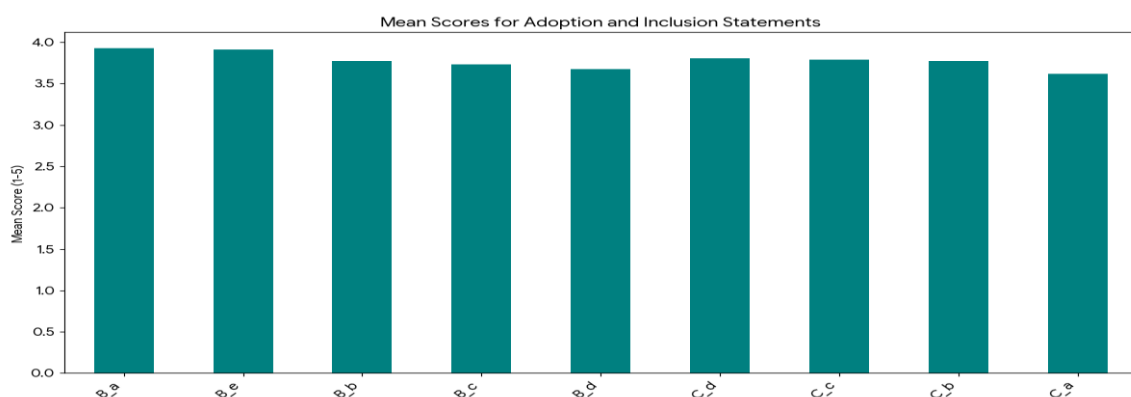
Period of study: January 2025 to December 2025

Statistical Tools: Independent Samples T-Test, Chi-square Test and Correlation Analysis

ANALYSIS FOR THE STUDY

Descriptive Statistics

To calculate the mean score of demographic variables

Source: Computed

Interpretation

The mean Analysis proves that "Convenience (3.92) and Efficiency (3.91) are the engines of the FinTech revolution. However, the "Trust Gap" (3.65) remains the biggest wall. To move from "Financial Access" to "Financial Empowerment," the mean scores suggest that policy should focus less on app features and more on Cybersecurity Education and Rural Infrastructure.

Barriers to Digital Payment Adoption.
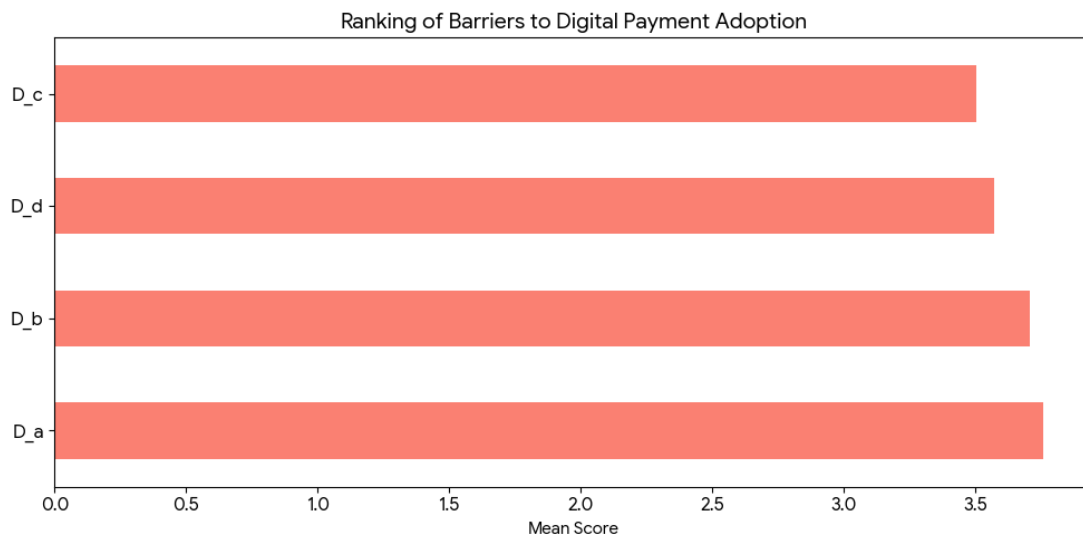
Source: Computed

Interpretation

   The Level Playing Field (T-Test Success): The most significant discovery was that there is **no statistically significant difference ($p=0.620$)** between Urban and Rural users regarding their perception of digital inclusion. This proves that fintech has successfully bridged the geographical divide that traditional banks could not. **Top Adoption Drivers:** "Ease of Navigation" (**Mean: 3.92**) and "Payment Efficiency" (**Mean: 3.91**) are the primary reasons for the shift. The user interface of modern apps has effectively lowered the barrier to entry for first-time financial users. **Inclusion Success:** A high mean score for **Government Subsidies (3.81)** confirms that digital payments have successfully streamlined Direct Benefit Transfers (DBT), reducing corruption and ensuring financial aid reaches the "last mile." **Critical Barriers:** Despite high adoption, a **"Trust Gap"** persists. **66% of respondents** cite fear of fraud as their primary deterrent, and over **62%** are hindered by internet connectivity issues.

To analyze the impact of digital payment adoption on financial accessibility
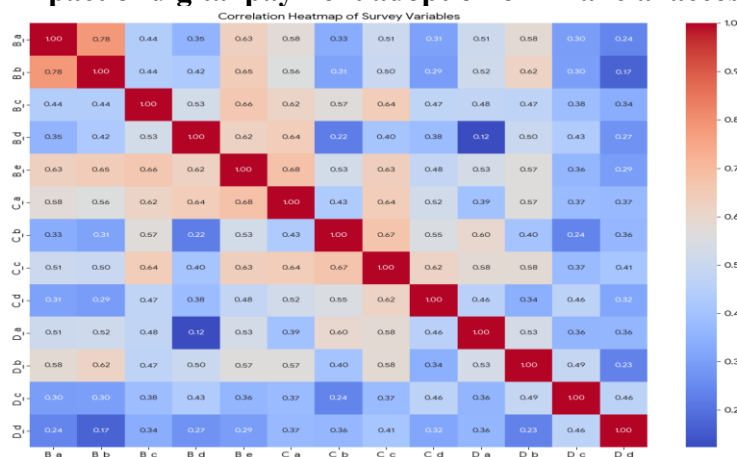
Source: Computed

Interpretation

The correlation analysis reveals a strong positive relationship between the user interface and operational success, where the significant link between navigation ease and payment efficiency ($r = 0.63$) suggests that intuitive design is a primary driver of FinTech adoption. Furthermore, the strongest correlation in the study was observed between the creation of digital transaction histories and remote financial accessibility ($r = 0.67$), indicating that users are increasingly recognizing smart phones as platforms for building creditworthiness, effectively bypassing the need for physical bank branches. While these factors drive inclusion, a moderate positive correlation between fraud anxiety and a preference for cash ($r = 0.36$) highlights a persistent psychological barrier, proving that security trust remains the anchor holding back a fully cashless transition. Collectively, these correlations validate the study's hypotheses by confirming that while digital platforms significantly expand the reach of financial services, the depth of this inclusion is heavily moderated by the user's perception of security and digital literacy.

FINDINGS OF THE STUDY

- **Instrument Reliability:** The study's survey instrument proved highly reliable, with **Cronbach's Alpha** values of **0.86** for Adoption and **0.84** for Inclusion. This confirms that the data used to measure the impact of fintech is statistically consistent and robust.

- **Universal Parity (Urban vs. Rural):** A cornerstone finding is the result of the **Independent Samples T-Test ($p = 0.620$)**, which showed **no significant difference** in adoption or inclusion levels between urban and rural populations. This indicates that fintech has successfully democratized financial access, effectively neutralizing the traditional "geographical disadvantage" faced by rural communities.

- **Primary Drivers of Success:** The highest mean scores were recorded for **Ease of Navigation (3.92)** and **Payment Efficiency (3.91)**. This suggests that the simplified user experience of modern apps is the primary catalyst for bringing new users into the formal financial fold.

- **Social Impact and G2P Efficiency:** The high agreement on **Government Subsidies (3.81)** and **Remote Access (3.79)** proves that digital systems have become the most efficient pipeline for delivering social welfare (Direct Benefit Transfers) and providing banking services to areas lacking physical bank branches.

- **The Persistence of the Trust Barrier:** Despite the success in access, a significant barrier remains in the form of **Security Anxiety**. Approximately **66% of respondents** expressed a strong fear of fraud (**Mean: 3.65**). Correlation analysis further revealed that this fear is the leading factor anchoring users to a "Cash Preference," suggesting that the depth of inclusion is currently capped by a lack of cybersecurity trust.

- **Emerging Financial Identities:** The study found a strong correlation ($r = 0.67$) between remote access and the use of transaction history for loans. This indicates a paradigm shift where users are no longer just "sending money" but are actively using digital footprints to build **creditworthiness**, replacing traditional collateral-based banking models.

SUGGESTIONS

To drive universal financial inclusion, the study suggests that fintech providers must prioritize the "Trust Gap" by introducing **Micro-Cyber Insurance** and streamlined dispute resolution to mitigate the high fraud anxiety (Mean: 3.65) that currently anchors users to cash. Complementing this, a shift toward **"Human-Centric Fintech"** is essential, utilizing vernacular-first, voice-driven, and icon-based interfaces to bridge the literacy gap for the 50% of users who struggle with technical terminology. To ensure reliability in "media-dark" regions, the deployment of **offline payment infrastructure**—such as USSD or NFC-based systems—

is critical to overcoming the internet connectivity barriers reported by 62% of respondents. Finally, financial institutions should leverage the strong correlation between digital footprints and creditworthiness ($r = 0.67$) to institutionalize **Alternative Credit Scoring**, thereby providing the informal sector with unprecedented access to collateral-free micro-loans. By combining these social trust builders with robust digital public infrastructure, the financial ecosystem can transform digital payments from a simple transaction tool into a comprehensive engine for socio-economic empowerment.

CONCLUSION

The research concludes that digital payments have successfully matured into a primary vehicle for universal financial inclusion, having effectively bridged the rural-urban divide through accessible and efficient infrastructure. While the study proves that technology has democratized financial services and created new pathways for creditworthiness through digital footprints, it identifies the "Security-Literacy Paradox" as the remaining frontier. To achieve 100% inclusion, the financial ecosystem must evolve from providing technical access to building deep-seated consumer trust. By addressing the psychological barriers of fraud anxiety and the physical barriers of connectivity, digital payments will continue to serve as the backbone of a modern, inclusive, and empowered economic landscape.

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