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CONTENT

Sl. No	Title	Page No.
1.	AWARENESS ON NICHE MARKETING AMONG PEOPLE IN CHENNAI REGION DEESHA NAHAR P, MALAVIKA PAVITHRAN, ARUN R	1-8
2.	A STUDY ON THE EFFECTIVENESS OF PROMOTIONAL STRATEGIES ADOPTED IN SOCIAL MEDIA FOR FMCG PRODUCTS IN CHENNAI Dr. D. SHANMUGAM	9-17
3.	A STUDY ON TECHNOLOGICAL ADAPTION AMONG BANK EMPLOYEES WITH SELECTED BANKS IN COIMBATORE DISTRICT Dr. L. NITHYA & THAMARAI P	18-24
4.	APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGY IN BUSINESS – A STUDY IN ERODE Dr. N. SUREGA	25-30
5.	IMPACT OF HR POLICIES ON THE SATISFACTION OF EMPLOYEES Dr. SOMASEKHARAN T. M.	31-38
6.	ENVIRONMENTAL ACCOUNTING: METHODOLOGY AND APPLICATION Dr. K. KARUPPASAMY & Mr. M. KANNAN	39-46
7.	A STUDY ON IMPACT OF EMOTIONAL INTELLIGENCE ON STUDENT'S ACADEMIC PERFORMANCE IN PROFESSIONAL SETTINGS SUJITHA PARTHEEBAN	47-54
8.	NEWLY EMERGED CYBER CRIMES AND ITS LEGISLATIVE MEASURES IN INDIA B.DHANAVEL, K.JEEVA & A. SRISABARINATHAN	55-61
9.	A STUDY ON COMMUNITY-BASED APPROACHES TO INTERGENERATIONAL LEARNING IN AGRONOMICS C.SEERANGAN, & Dr. R. VENKATA RAVI,	62-69
10.	A STUDY ON GUERRILLA MARKETING: A COST STRATEGY FOR START UPS, AWARENESSES AND EFFECTIVENESS U.SAFIYA FATHIMA & Dr. S. VIJAY	70-76
11.	CRITICAL ANALYSIS OF CYBER CRIME – THREAT TO NATIONAL SECURITY SANJAY & RAKESH. IR	77-84

12.	DIGITAL INNOVATIONS IN FINANCE Ms. P. PRAGATHI & Mr. R. ASWIN	85-93
13.	DIGITAL MARKETING STRATEGIES ADOPTED FOR ATTRACTING RURAL CONSUMERS: A CONCEPTUAL STUDY Dr. B. THULASIPRIYA, LARISHA JANET RODRIGUES,	94-100
14.	FOREIGN TRADE YAZHINI KUPPUSAMY & SANGITA.S,	101-106
15.	REVOLUTIONIZING BANKING- EXPLORING THE NEO-BANKING PHENOMENON Dr. RANJIT THOMAS	107-111
16.	APPLICATION OF GAMIFICATION IN PUBLIC SECTORS UNITS MUGUNDHAN T & L.S. KANISHKER	112-117
17.	AGRICULTURAL CHALLENGES AND SUSTAINABLE DEVELOPMENT TOWARDS WOMEN AGRIPRENEURS Dr. P. MARI SELVAM & Dr. J.M. VELMURUGAN	118-125
18.	A STUDY ON USER'S SATISFACTION ABOUT DIGITAL FINANCER IN CENTRAL CHENNAI Dr. A.RAHIMABANU	126-131
19.	IMPLICATIONS OF AUDITING AND INVESTIGATIVE FORENSIC ACCOUNTING Dr. C. MALAIKANI & Dr. S. JAYALAKSHMI	132-137
20.	EFFECTIVENESS OF BONUS SHARES PERFORMANCE ON SELECTED OIL AND PETROLEUM INDUSTRIES Dr. S. TAMILSELVAN	138-144
21.	BRANDING THROUGH CORPORATE SOCIAL RESPONSIBILITY (CSR) IN INDIA: MITIGATING NATURAL DISASTER IMPACTS THROUGH CORPORATE INITIATIVES POORNA.R, NOORUL SHIFA FARGATH.K & KUMUTHAVALLIP	145-151
22.	THE SILENT WAR: CYBER ESPIONAGE IN THE 21ST CENTURY VIKASHINI.G.S & SAINIKITHA.OL	152-158
23.	UNVEILING GREEN MARKETING: STRATEGIES, EVOLUTION, CHALLENGES, AND THE PATH TOWARDS SUSTAINABLE DEVELOPMENT CELIN PRISCILLA T & DHANAVARSHENE V	159-165
24.	HEALTH HAZARDS OF MANUAL SCAVENGERS IN TRICHIRAPALLI MUNICIPAL CORPORATION- A SOCIOLOGICAL STUDY Dr. M. VIJAYA KUMAR & Prof (Dr) N. R. SURESH BABU	166-170
25.	THE EVOLVING LANDSCAPE OF CYBER LAW AND CYBER SECURITY SUMIYA FAROOK & MARIYAM MUBASSARA	171-179
26.	FORENSIC ACCOUNTING AND FRAUD Dr. R MARI SAKTHI & B. KIRUTHIKA & S. RAKSHITHA	180-187

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AWARENESS ON NICHE MARKETING AMONG PEOPLE IN CHENNAI REGION

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Abstract

This study focus on niche marketing which is a growing segment in the field of marketing. Numerous businesses all around the world have used niche marketing to great effect. Despite the subject's growing popularity and attention, there doesn't seem to be any research on it. Despite the fact that a number of publications have been published in this field, they are mostly from the perspective of practitioners. In some marketing textbooks, under the broad headings of "segmentation" or "positioning," research articles appear to be restricted to certain generic definitions and succinct explanations. This study analyses the level of awareness among people about niche marketing in the region of Chennai. Following this investigation, a quantitative research methodology is applied. Both primary and secondary data were used in this investigation. Primary data were gathered via structured questionnaires that were sent to respondents prior to in-depth interviews. The data was statistically analysed using SPSS.

Keywords: *Niche Marketing Strategy, market share, uniqueness, knowledge, customers.*

Introduction

The definition of niche marketing is directing all marketing efforts on a certain, well-defined demographic segment. The concept of a "niche" does not actually exist; rather, it is produced by clever marketing strategies and determining what the target audience

wants .A marketing strategy used to target a particular, distinctive market sector is called niche marketing. When a corporation recognizes what the consumer needs and then tries to provide a better solution to a problem that was not previously offered by other companies, it

may discover what the customer wants, which is frequently how niche markets are developed. A niche market comprises a particular target demographic and a specialized offering, not necessarily a tiny market. By doing this, the business gains market dominance and makes it possible for other businesses to enter that specific market. For instance, there are many movie theatres in India, but only a small number of them provide reclining chairs. Not everyone wants to see a movie for five to six times the regular ticket price. As a result, the target market is significantly different, and the hall is only open where the corporation believes it can reach the target market, particularly in upscale neighborhood. The benefits of specialty marketing are numerous. One advantage of a niche market is that there is little to no competition in that industry. The business essentially controls the market and has a monopoly on prices. Another advantage is the firm's solid customer relationships. Because the company serves a limited market, this strengthens the bond between the brand and the company, which is essential for retaining consumers. Niche firms sometimes have substantial profit margins. Customers are willing to spend a little bit more since they can only obtain that service from that business or under its brand.

We gain from cost savings and increased productivity when your business offers particular goods and services as opposed to a broad range of options. Additionally, you'll get a competitive advantage over opponents that are generalist's .Businesses that choose to target a certain niche market draw in more

clients to their goods and services. Let's examine a few advantages of working in a specialized market. In its most basic form, niche marketing refers to a certain segment of the target market's demographics. For instance, there may be many sectors related to the same market for shoes. Shoes for parties, the office, ladies, men, or casual wear are a few examples of footwear. These are all examples of niche markets, and each market is defined and segmented to cater to the unique demands and tastes of its customers.

Niche Marketing Strategy

In a niche market strategy, there are a lot of prospective customers who are diverse, geographically dispersed, and have different income levels, social statuses, and educational backgrounds. Naturally, many businesses create goods or services that appeal to a broad market or are meant to win over a huge number of customers; this type of activity is known as mass marketing. Many believe that targeting the mass market in any product category is advantageous since the market is so large and that obtaining three to five percent of the market would be adequate to operate the firm economically. However, given the scale of the market, there may be several competitors, each with unique strengths and shortcomings, making it difficult to compare them. Specialized marketing plan Producers frequently have to make significant decisions regarding the future course of their business activity in response to market, business, or personal events. Companies must always come up with fresh, original strategies to draw in and keep consumers because of the ever evolving requirements of their clients and

the fierce competition they face. In the era of diversity, marketing requires "changing company structures as large corporations continue to become niche marketers in order to compete with smaller niche players who are experts in their markets."

Scope of the Study

Niche marketing is a developing segment and new segment in marketing. This new segment gives a lot of scope for research and market analysis and it gives a scope to have consumer awareness.

Objective of the Study

1. To examine the awareness among people about niche marketing in Chennai region.
2. To examine whether which gender shows most preference towards niche marketing.

Methodology

This study uses both primary and secondary data for the purpose of research. The data was collected through questionnaire and respondents were send link with few questions and it was a simple random sampling and a data among 75 samples were collected. The collected data is analyzed and interpreted with SPSS package for findings and interpretation .This study used STPSS package for the data analysis and they bused various tools like T-test, descriptive, frequencies, pie charts etc for the respondents. The data was collected from journals, articles, newspapers, company's reports and profit and loss statement, internet, books etc.

Limitation of the Study

This study is limited to the people of Chennai region and due to time and cost the data was collected only from few

respondents and this result cannot be universally implied. The consumer perception may change in accordance with time.

Review of Literature

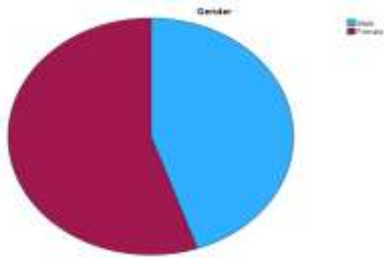
Toften, K., & Hammervoll, T. (2007) The authors go on to say that one way to conceive of niche marketing is to divide typical markets into smaller segments before developing unique marketing strategies for each of these niches. According to the literature, niche marketing is generally a defensive tactic that works best when a company can put in place a strategic plan to lessen market rivalry. A company's segmentation, targeting, and positioning decisions (STP process) at the level of the Strategic Business Unit determine its marketing strategy.

Parrish, E. D., Cassill, N. L., & Oxenham, W. (2006b). The authors by segmenting and targeting the market, businesses may identify their niche and improve their design, pricing, and communication to appeal to their target audience. They can also better imitate their competitors' marketing strategies. Businesses that target certain demographic groups or subgroups with their products will stand out and be more skillful because they have a better understanding of the needs and preferences of their target market. Focus marketing, target marketing, focused marketing, and regional marketing are all terms used to describe niche marketing.

Fazal Akbar , Abdul Omar, Fazli Wadood (2017) The foundation of this essay is the idea that it's critical to comprehend what niche marketing is, what

its components are, and what makes a successful niche marketing plan. Segmentation and positioning are key components of a successful niche marketing strategy. The primary goals of niche marketing are profitability, adherence to the marketing idea, relationship marketing techniques, and reputation development for the business based on long-term mutual benefit with its clients. In order to compete effectively in marketplaces controlled by much larger organizations, small businesses must adopt these concepts and turn become guerrilla marketers.

Dr. Shweta Choudhary (2014) The submarket where certain items are offered is referred to as a niche market. More specifically, niche marketing refers to a small market area where goods with unique selling points thrive. Sports networks that target a certain group of sports fans include ESPN, Star Sports, Fox Sports, and Star Cricket. The core idea behind niche marketing is "Big fish in small ponds." The marketer can provide services in a more specialized way and establish a monopoly by focusing on a particular market. Umesh and Krupa Rao (2018) Niche marketing may be used in a variety of contexts, including a range



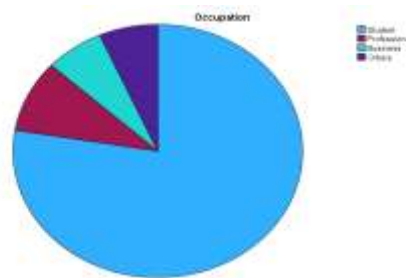
of sectors, businesses of varying sizes, local and foreign markets, and new and established markets. Additionally, it appears that the utilisation of specialization, relationship marketing, establishing internal dynamic opacities, and erecting protective barriers are necessary for successful niche marketing.

The risk of losing control of the distribution channel, declining niche demand, recruiting big rivals, and maintaining the sustainability of the niche were the final possible issues with pursuing niche marketing.

Research Gap

The past and previous papers are more generalized and have an international perspective about Niche Marketing and its scope and strategies. This paper is more specified and mainly talks about awareness and this study is only limited to population of Chennai region.

Data Analysis and Interpretation



From the above charts we can come to conclusion that most of the people have visited the luxury brands but only few of them own it

Gender * Do you own any luxury brand product? Cross tabulation	
Count	

		Do you own any luxury brand product?		
		Yes	No	Total
Gender	Male	26	8	34
	Female	26	16	42
Total		52	24	76

The respondents who have answered have visited and own luxury products this shows the purchasing power of the students and it is mostly to be because of the income of the parents since they are dependent on them. Both male and female population both own luxury products equally.

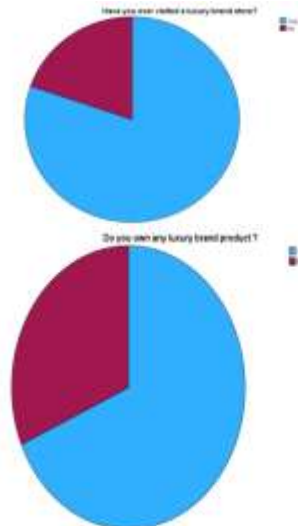
The above pie charts show demographic data for age, occupation, gender and annual income of the respondents. We can notice that the below 25 years have answered the most in the research and the other groups have less representation. The respondents participated are mostly students and others are very less. So we can interpret students below 25 years have participated more in this survey. The female and male population is equal and since the most respondents are students their income is nil or zero. These studies focus on female and male population of students below 25 years with no income the most.

Are you aware of luxury brands like Nike, Dior, Audi, etc?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	70	92.1	92.1	92.1
	No	6	7.9	7.9	100.0
	Total	76	100.0	100.0	

The respondents have heard about the luxury brands and most of them know the famous brands and have brand knowledge.

Whom have you seen using these brands?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Influencers, celebrities	16	21.1	21.1	21.1
	Family and friends	25	32.9	32.9	53.9
	Business men and politicians	6	7.9	7.9	61.8
	Option a and b	29	38.2	38.2	100.0
	Total	76	100.0	100.0	

The above table shows that shows that 38 % of respondents seen celebrities and influencers and family used these brands. This shows how people are influenced by those groups of people.



From the above charts we can come to conclusion that most of the people have visited the luxury brands but only few of them own it

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Cross Tabulation to Check Which Gender Is More Properly Aware

A set of questions were ask to the respondents to check if they have proper awareness about niche marketing and to check which gender is more aware about it .It had right and wrong answer to make them choose the best option for the question.

Gender * What is an example of luxury products from the below option.						
		What is an example of luxury products from the below option.				Total
		burger	basic shoes	pet spa	sedan car with special features	
Gender	Male	1	7	4	22	34
	Female	1	4	6	31	42
Total		2	11	10	53	76

Gender * What are the reasons for niche brands being indifferent in market?		
What are the reasons for niche brands being indifferent in market?		Total

		they want to target only one segment	they dont have money to invest	they want to save up in marketing	none of the above	Total
Gender	Male	18	5	6	5	34
	Female	27	2	3	10	42
Total		45	7	9	15	76

Are you aware about niche or luxury brand marketing?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	49	64.5	64.5	64.5
	No	18	23.7	23.7	88.2
	Maybe	9	11.8	11.8	100.0
	Total	76	100.0	100.0	

From above two tables we understand that respondents are aware about niche products and the marketing strategy which is grow in very fast in the market .More than half o the respondents are aware about it and has been educated about it .

Gender * Best explanation of niche marketing.						
		Best explanation of niche marketing.				Total
		market for niches	developing segment of market	a market for very specific products	developing a very small segment of market directed towards a small groups committed buyers	
Gender	Male	7	8	15	4	34
	Female	4	20	13	5	42
Total		11	28	28	9	76

From all the answer given from respondents we understand omen are more

properly aware about the niche marketing than men by few percentage because of them spending more or many more reasons can be given but more of less men also are aware and only few of the respondents have given wrong answers which shows men knowledge is also more of less same as women population.

T-Test:

Independent Samples Effect Sizes					
		Standardizer ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
Niche brands target, only few people .	Cohen's d	.787	1.079	.144	2.005
	Hedges' correction	.797	1.066	.142	1.982
	Glass's delta	.837	1.015	-.158	2.114
Niche brands have a specialized market place which are indifferent in market .	Cohen's d	.777	.692	-.230	1.609
	Hedges' correction	.786	.684	-.227	1.590
	Glass's delta	.837	.643	-.396	1.620
People buy these products because they get influenced and intimidated to buy .	Cohen's d	.941	.749	-.175	1.667
	Hedges' correction	.952	.740	-.173	1.647
	Glass's delta	.707	.997	-.169	2.089
Niche products elevate standard of living .	Cohen's d	.894	-.198	-1.110	.715
	Hedges' correction	.904	-.196	-1.097	.707
	Glass's delta	.837	-.212	-1.122	.723
Niche products	Cohen's d	.850	.339	-.576	1.252

quality and experience is worth spending on it .	Hedges' correction	.861	.335	-.569	1.237
	Glass's delta	.548	.527	-.478	1.477
Investing in niche products will give a longer lifespan and efficient usage	Cohen's d	.870	.124	-.788	1.036
	Hedges' correction	.880	.123	-.779	1.024
	Glass's delta	.548	.198	-.735	1.107
People willing to spend for luxury experience by using it.	Cohen's d	.882	.007	-.904	.919
	Hedges' correction	.892	.007	-.894	.908
	Glass's delta	.894	.007	-.905	.919
Niche brands are highly profit-making	Cohen's d	.935	.396	-.520	1.309
	Hedges' correction	.946	.391	-.514	1.293
	Glass's delta	.548	.676	-.373	1.662
Niche marketing focuses on a few people targeted and have a aim to create brand value.	Cohen's d	.811	.680	-.242	1.596
	Hedges' correction	.820	.672	-.240	1.577
	Glass's delta	.548	1.006	-.164	2.101
It is worth investing money on niche products for the price sold .	Cohen's d	.924	.500	-.417	1.414
	Hedges' correction	.935	.495	-.412	1.398
	Glass's delta	1.095	.422	-.555	1.354

a. The denominator used in estimating the effect sizes.
Cohen's d uses the pooled standard deviation.
Hedges' correction uses the pooled standard deviation, plus a correction factor.
Glass's delta uses the sample standard deviation of the control group.

There is no significant relationship between the age groups of the respondent

with regard to the opinions about the niche marketing, since P value is greater than 0.05. Hence the null hypothesis is accepted at 5% level with regard to the opinions of niche marketing

Conclusion

Niche marketing it a concept was only one segment of audience is focused and it uses targeting marketing, product positioning and market segmentation to focus on the audience and they use demographic features to target mainly income and status of the audience. The research conducted shows there is awareness about the niche marketing among the people of Chennai region and women are slightly more aware and this shows the respondents are educated and have adequate knowledge about the marketing strategies.

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A STUDY ON THE EFFECTIVENESS OF PROMOTIONAL STRATEGIES ADOPTED IN SOCIAL MEDIA FOR FMCG PRODUCTS IN CHENNAI

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Abstract

Social media is an innovative application of information technology that has flourished in modern human lives, where business related communication among the various associates is sustained through the operating systems based on internet. Social media also gives opportunities in numerous ways to concentrate on the corporate fronts, such as creating awareness among the consumers, and facilitating small- and large-scale organizations to nurture their business affairs and consumer base. Social media is becoming progressively more prevalent and is altering the tone, pattern and style of conversation between the individuals. Social media has given us a fertile playful arena which provides creation, connection; conversations and sharing of online content, and it can act as a very vital element of an online marketing campaign. Social media revolves around nurturing interaction with the consumers instead of having a one-way mode of communication for sharing the brand message. These Social media platforms facilitate users to share, publish content and to build network. These Social media platforms are accessible on diverse types of devices and facilitate users to connect with other users without any restrictions.

Key words: Social media, advertisement, Opportunities, online marketing,

Introduction

When a company is to formulate and organize a social media marketing strategy, it finds the availability of a vast range of forms of social media from which to make a choice for the utilization. The network's supremacy is amalgamated with

the combination of numerous tools of social media. The combination of social media extremely relies on the strategic objectives of the marketer and the upcoming trends in the target audience.

Social Networks: Social networks are the basic type of social media in which

websites frequently allow the users to build personal web pages and these provide them connectivity with the other users like friends, peers, family members and acquaintances. The users are able to communicate and share content with other users with the help of social networks (Sharma & Rehman, 2012). The best examples of social networks are Facebook, LinkedIn, Myspace (Lin & Rauschnabel, 2016).

Blogs: Social media comprises its content majorly in the form of blogs. The blogs are generally displayed in the way of articles, online journals, etc. (Sharma & Rehman, 2012). Blogs can serve variety of functions e.g. to have a simple access to the users' data or to write content on the web (Cann, 2011). Blogs are a very thriving marketing instrument that can be used in an exceptional manner to communicate with the employees, investors, business members, correspondents and prospective customers. Blogging assists in promoting a community around a brand, and it provides a prospect to acquire abrupt feedback on the improvement of the brands. Blogger, Word Press, LiveJournal are some examples of blogging.

Content Communities: The fundamental communities that systematize and share specific type of content among the users is called content communities. These are the platforms that provide distinct features such as live video streaming, free viewing of trending videos, comments, rating, tagging by the viewers (Banerjee, 2017) and spreading information (Go & You, 2016). The content communities which include photos (Flicker), videos (YouTube) and

bookmarked links have emerged to be the most popular ones. Different companies with the exceptional video campaigns through YouTube have had their advances in the way of brand marketing, through the viral effect of videos (Miyungi Odhiambo, 2012).

Objectives of the Study

Primary Objective

To evaluate the effectiveness of promotional strategies adopted in social media for FMCG products.

Secondary Objectives

- To measure the effects of promotional strategies through social media.
- To analyse the factors influencing consumers over buying FMCG products.
- To assess the advantages gained through social media promotion by consumers overchoosing FMCG products.
- To find out the satisfaction of customers over social media promotion
- To suggest the ways to standardize the promotional aspects for FMCG products

Need for the Study

FMCG companies can use their digital marketing strategies to target potential consumers who are looking for specific products on the internet. FMCGS can also build brand awareness & create loyalty among customers by providing valuable content related to their product or industry. Fast moving consumer goods are those products that have a shorter life, sold quickly & cost much less than other products. The FMCG brand website, social media channels, content & messaging should reflect the brand. The priority for FMCG brands is to own their brand space in social media channels. This study will reveal the impact of social media

promotion on consumers, satisfaction of consumers over social media promotion for FMCG also assessed.

Limitations

- ❖ Time period is the major constrain.
- ❖ Unreliable data from the respondents is the major limitation.\

Review of Literature

Bogea (2021) in his study ascertained the variables that can influence social media adoption by firms and how these variables influence adoption. The study has further proposed a theoretical model of social media and tested empirically using TAM, UTAUT, and Institutional Theory. The study was conducted in two phases, combination of qualitative and quantitative study. In the first stage semi-structured interviews were conducted with senior marketing executives of large companies of different economic sectors.

Al Rahbi (2021) conducted a study to recognize the factors that influence SMEs in taking the decision about the social media adoption using the Technology- Organisation-Environment (TOE) framework. The study has followed a chronological combination of both qualitative and quantitative approaches to reach the research objectives. Initially semi-structured interviews with 18 SMEs owner-managers in Muscat were conducted and derived a preliminary TOE model of 18 factors from the analysis of the interviews. Further a survey was undertaken and collected data from 205 SMEs in Muscat to inspect empirically the model framed earlier. The survey data were analyzed using logistic regression (LR). The results of the study revealed that

compatibility, observability, trialability, trust, image, perceived lack of managerial time, market scope, customer pressure and family and friends' support were the main factors that have significant influence on SMEs' decisions to adopt social media.

Kalkan and Bozkurt (2020) aimed to examine the perception of SMEs about the social media and their motives of using the social media tools. The data for the research we recollected from SMEs operating in Burdur using simple random sampling. The questionnaire was used as an instrument to collect data for the purpose of research. Further, computer and statistical analysis was carried out by using SPSS 20 statistical program. Finally, a frequency table regarding the social media usage in SMEs was established. As a result, it was seen that 82.1% of SMEs participating in this study have a social network page. Secondly, most of the firms were using Facebook social media network. In addition, SMEs were involved in the idea that social media is an imperative tool for opening themselves globally. In addition to this, SMEs realized that the use of social media is a significant factor that touches their corporate image and reputation and it is instrumental in increasing their competitiveness by providing new opportunities to SMEs.

Lacoste (2020) has contributed towards the research in the era of social media with the objective to understand how the key managers use social media account and how it helps them to interact with the key customers. The study aimed at differentiating the social media use between the selling and KAM functions. The study followed a qualitative research approach

using the grounded theory method. The researchers exhibited a model based on analysed empirical data and broadened the application of social media to the KAM function. Thus, the present study has shown the constraint of social media within the key customer engagement life cycle.

Research Methodology

Methodology

The primary purpose for applied research is discovering, interpreting, and the development of methods and systems for the advancement of human knowledge on a wide variety of scientific matters of our world and the universe. Research can use the scientific method, but need not do so. Research methodology is a way to systematically solve the research problem. The research methodology in the present study deals with research design, data collection methods, sampling methods, survey, analysis and interpretations.

Approaches to Research:

Descriptive approach. In this approach, a problem is described by the researcher by using questionnaire or schedule.

This approach enables a researcher to explore new areas of investigation. It is also called Statistical Research. The main goal is to describe the data and characteristics about what is being studied. The idea behind this type of research is to study frequencies, averages, and other statistical calculations. It can provide a rich data set that often brings to light new knowledge or awareness that may have otherwise gone unnoticed or encountered.

Research Design:

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine

relevance to the research purpose with economy in procedure.

1. A well-structured questionnaire is framed.
2. Findings are made and necessary suggestions and recommendations are given.

Data Collection

Data collection is one of the most important aspects of research. Two types of data are, Primary Data and Secondary Data.

Primary Data - Primary data is gathered from direct observation or data personally collected. It refers to that data which is collected for a specific purpose from the field of enquiry and are original in nature. For the project, primary data is collected from respondents using a questionnaire. A structured questionnaire has to be designed with series of close-ended and open-ended questions along with appropriate rated scale.

Sampling Technique

Sampling is that part of statistical practice concerned with the selection of individual observations intended to yield some knowledge about a population of concern, especially for the purposes of statistical inference.

Sample size – 120 respondents

Sampling Method: In this research, simple random sampling method is used. This is coming under probability sampling method

Research Instrument - Questionnaire

Generally, in questionnaire, the respondent can apply his own judgment and answer the question as he thinks right. While constructing a questionnaire the following vital points have to be considered: the type of questions to be asked, wording of questions and sequencing of questions. Every question

should be checked to evaluate its necessity in terms of fulfilling the research objectives. This Questionnaire is relatively simple, quick and inexpensive method of obtaining data. Researcher is able to gather data from a widely using google form link and consolidate the data accordingly.

Tools for Data Analysis

Analytical Tools: The following quantitative tools will be applied to do scientific calculation about the sampled tested chart.

Percentage Analysis

Percentage = Actual number/Total number x 100%

Hence, to calculate the percentage, here is the breakdown and its application: Actual number = It is the number for which you want to find the percentage. Total number = It is the number with which you want to compare or find the value out of

Karl Pearson’s Correlation: Correlation (r) is given by:

$$r = \frac{\sum xy}{\sqrt{\sum x^2 \times \sum y^2}}$$

Chi Square Analysis: Chi Square test was first used by Karl Pearson in the year 1900, the quantity chi-square discrepancy between theory and observation. It is defined as,

Chi Square, $\chi^2 = \sum (O_i - E_i)^2 / E_i$

Where, O_i = refers to the Observed Frequencies
 E_i = refers to the Expected Frequencies

C = refers to the degrees of freedom = (n-1)

Chapter IV Analysis & Interpretation

4.1. Duration of login pattern in social Media sites

Duration	N	%
Always connected	40	33
Once in a day	22	18
Once in a week	30	25

More than once a week	28	24
Total	120	100

This table observes that 33% of the respondents felt that duration of login pattern in social media sites was always connected, 18% of the respondents felt that the duration of login pattern in social media was connected once in day, 25% of the respondents felt that the login pattern was connected once in a week, 24% of the respondents felt that the duration of login pattern in social media sites was connected more than once a week.

FMCG products like to search in social media

Products	No. of respondents	Percentage
Groceries	42	35
Vegetables	28	23
Drugs	23	19
Others	27	23
Total	120	100

This table shows that 35% of the respondents felt that they would like to search about groceries in social media, 23% of the respondents felt that they would like to search about vegetables in social media, 19% of the respondents were search about drugs, 23% of the respondents were search about other FMCG products.

Social media you regularly engage

Social media	No. of respondents	Percentage
Face book	26	22
Twitter	12	10
You tube	42	35
Instagram	30	25
LinkedIn	9	8
Total	120	100

This table explores that 22% of the respondents were regularly engage on Face book, 10% of the respondents were

regularly engage on Twitter, 35% of the respondents were regularly engage on you tube, 25% of the regularly engage on Instagram, 8% of the respondents were engage on LinkedIn.

Social media promotion for FMCG products is effective

Opinion	No. of. respondents	Percentage
Yes	88	73
No	32	27
Total	120	100

Inference: From the above table it was identified that 73% of the respondents were accepted that social media promotion for FMCG products are effective, 27% of the respondents were not accepted that social media promotion for FMCG products are effective.

Promotional tools used by social media may attracts

Tools	N	%
Special discount	42	35
AD campaigns	36	30
Events	28	23
Movie/celebrity association	14	12
Total	120	100

This table observes that 35% of the respondents felt special discount as promotional tool used by social media to purchase FMCG products, 30% of the respondents felt Ad campaigns as a promotional tool, 23% of the respondents felt events as a promotional tool, 12% of the respondents felt movie/celebrity association as a promotional tool used by social media to purchase FMCG products.

Paying attention to advertisement on social media

Opinion	No. of. respondents	Percentage
Strongly agree	51	43

Agree	23	19
Neutral	26	22
Disagree	20	16
Total	120	100

This table highlights that 43% of the respondents were strongly agree that they are paying attention to advertisement on social media, 19% of the respondents were agree, 22% of the respondents were neutral, 16% of the respondents were disagree that they are paying attention to advertisement on social media.

Display of social media advertisements influence more

Opinion	No. of. Respondents	Percentage
Strongly agree	46	38
Agree	39	33
Neutral	21	18
Disagree	14	11
Total	120	100

From the above table it was highlighted that 38% of the respondents were strongly agree that display of social media advertisements influence more, 33% were agree, 18% were neutral & 11% of the respondents were disagree that display of social media advertisements influence more.

Tool Used – Correlation Analysis

To find out the significant relationship between display of social media advertisements & content of the brand in social media provides latest information.

X	(X-39) x	X ²	Y	(y-43) y	y ²	xy
46	7	49	39	-4	16	-28
39	0	0	43	0	0	0
21	-18	324	25	-18	324	324
14	-25	625	13	-30	900	750
		998			1240	1046

$$r = \frac{\sum xy}{\sqrt{\sum x^2 \times \sum y^2}} = \frac{1046}{\sqrt{998 \times 1240}}, = \frac{1046}{1112}, = 0.94$$

It was noted that the calculated value was positive correlation that was 0.94. Therefore there was a significant relationship between display in social media advertisement & content of brand in social media provides the needy information.

Chi Square Analysis

1. To find out an association between gender & familiar about social media promotion for FMCG products.
2. Ho – There is no association between gender & familiar about social media promotion for FMCG products.
3. H1 – There is an association between gender & familiar about social media promotion for FMCG products.

Gender	Fully Aware	Somewhat Aware	Not Aware	Total
Male	38	20	15	73
Female	24	13	10	42
	62	33	25	120

Observed (O)	Expected (E)	(O – E)	(O – E) ²	(O – E) ² /E
38	37.2	0.8	0.64	0.017
24	24.2	-0.2	0.04	0.001
20	20.0	0	0	0
13	12.9	0.1	0.01	0.000
15	15.2	-0.2	0.04	0.002
10	5.19	4.81	23.13	4.45
				4.47

Calculated value was 4.47 Degree of freedom $(r - 1) (c - 1) = (2 - 1) (3 - 1) = 1 \times 2 = 2$

Table value of 2 was 5.991

From the above calculation it was identified that the table value was more than calculated value. So H1 was accepted. Therefore there was an association between gender & familiar about social

media promotion for FMCG products.

Findings, Suggestions and Conclusion

Findings

- ❖ 61% of the respondents were male.
- ❖ 30% of the respondents were under the age category of 30-35 years.
- ❖ 33% of the respondents have completed post graduate.
- ❖ Most of the respondents were getting 30,000-40,000 as income.
- ❖ 52% of the respondents were fully aware of social media promotion for FMCG products.
- ❖ 33% of the respondents were always connected in social media sites.
- ❖ Most of the respondents were like to search for groceries in social media.
- ❖ Majority of the respondents were regularly engaged in YouTube.
- ❖ 73% of the respondents were accepting on social media promotion for FMCG products were effective.
- ❖ Most of the respondents were felt that special discount used by social media attracts.
- ❖ 43% of the respondents were strongly agree on paying attention to advertisement on social media.
- ❖ 38% of the respondents were strongly agree on display of social media advertisements influence more.
- ❖ Most of the respondents were strongly agree on content of the brand on social media.
- ❖ 36% of the respondents were agree on choices were available to purchase FMCG products.
- ❖ Most of the respondents were agree on social media promotion insist on product nature.
- ❖ 33% of the respondents were agree

on social media promotion will influence newcustomers.

- ❖ Most of the respondents were agree on more benefits may be derived through socialmedia promotion.
- ❖ 38% of the respondents were agree on social media promotion may bring innovations& adaptions.
- ❖ 78% of the respondents were accepting on social media promotion for FMCG productscapture market.
- ❖ Most of the respondents were agree on promotion in social media was a challengingone.
- ❖ 32% of the respondents were accepting that it was highly possible to convey the relevant information about FMCG through social media.
- ❖ Most of the respondents were agree on social media promotion may reach the youngergeneration fully.
- ❖ 66% of the respondents were accepting that FMCG products were defined throughpersonalities in social media.
- ❖ 32% of the respondents were highly satisfied with the promotion of FMCG products insocial media.
- ❖ Most of the respondents were highly satisfied with the personalities engaged inpromotion.
- ❖ 80% of the respondents were accepting that social media promotion needs moreinvestments.
- ❖ 66% of the respondents were accepting over need for standardizing social media promotion.
- ❖ Most of the respondents were felt that social media promotion were well evaluated.

- ❖ Majority of the respondents were felt excellent on social media promotion for FMCGproducts.

Suggestions

The marketer's key aim is to approach the prospective consumers and influence their awareness, attitudes, buying behaviour. The identification of the communication ways to lay an impact on the behaviour of the consumers is an indispensable activity of communication mix, the eventual purpose being the formation of advertising messages for reaching target market through efficient platforms. There are many fundamental steps that consumer's go through before and after making their purchase decision. The marketer's messages can influence the buyer's behaviour at any stage in this process. Marketers approach the consumers through various social media messages and content which is true for low involvement FMCG products as well. The decision process is circular in nature and the advertisers who understand this process can develop messages more likely to reach and make sense to the consumers. Thus, this makes it significant to study the influence of message strategies while using social media platform throughout the process of decision making by the consumers.

Conclusion

Marketers are progressively more connecting with their customers through social media, which provides the marketer a platform to enhance its reach in terms of customers and to communicate with the existing and potential customers and use their opinions for impacting others. the process of decision making by the

consumers includes various stages to be explored by the consumers for discovering their wants, accumulation of information, evaluation of alternatives and then finally making the purchase decision based on economic, cultural, psychological and technical factors. Today the process of information search is incomplete without using social media. It is estimated that consumers constituting 60% proportion use Google and other likewise search engines to answer their queries regarding a product or brand and the remaining 40% consumers rely on gathering information from social networking platforms such as Face book, YouTube, Blogs and Twitter (Solomon, 2015). With the help of internet, the cost incurred for search has subsequently decreased but is not absolutely free.

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A STUDY ON TECHNOLOGICAL ADAPTION AMONG BANK EMPLOYEES WITH SELECTED BANKS IN COIMBATORE DISTRICT

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Abstract

The current phase of technological adaption in banks highlights a paradigm shift in which institutions are driven to use cutting-edge tools and digital solutions to remain competitive, boost customer engagement, and sustain operational excellence. The banking industry's growing reliance on technology offers hurdles, particularly in adapting bank employees to these developments. The study will examine at the manner in which HDFC Bank and Karur Vysya Bank employees adapt to new technology. This study evaluates the current technological adaption of bank personnel, finds skill shortages, and investigates the influence on employee's efficiency. It focuses on employee resistance, integration problems, learning culture, customer impact, and regulatory compliance. The primary objective is to evaluate technological adaption levels among bank employees in selected banks. In this study both primary and secondary data has been used. A Primary data regarding technological adaption among bank employees were collected through structured questionnaires from HDFC Bank and Karur Vysya Bank employee with a sample size of 60 respondents was considered. The Findings summarize demographic characteristics of respondents, including gender, age, education, income, and work experience. It concludes that Investing in employees' technological adaption is vital for banks to thrive in a digital era, enhancing customer experiences and long-term success.

Keywords: bank employees, digital, technological adaption

INTRODUCTION In the ever-changing financial industry landscape, technological

adaptability has emerged as a major factor of success for banks globally. The banking

sector, long considered as a pillar of stability, has undergone major transformations as a result of rapid advances in information technology and digital innovation. Adoption and integration of these technologies have not only transformed the way banks function, but have also transformed customer experiences, security protocols, and overall efficiency. This era of technological adaptation in banks reflects a paradigm change in which institutions are pushed to leverage the power of cutting-edge tools and digital solutions in order to remain competitive, improve customer engagement, and maintain operational excellence. The integration of fintech solutions, artificial intelligence, blockchain technology, data analytics, and mobile banking applications has reshaped traditional banking practices, allowing financial institutions to provide a diverse range of services while lowering costs and improving accessibility. Furthermore, the global pandemic has hastened the speed of technological implementation in the banking industry. The significance of solid online banking infrastructure, digital payment systems, and better cyber security measures has been illustrated by social distancing measures and the trend towards remote work. Banks quickly responded by embracing digitalization in order to maintain flawless operations and fulfil their customer's changing expectations.

In this dynamic environment, understanding the nuances of technological adaptation in banks is paramount. This exploration encompasses the strategies employed by banks to embrace innovation, the challenges they face in navigating this

transformation, and the impact of these changes on both internal processes and customer interactions. Moreover, it delves into the evolving regulatory landscape, customer expectations, and the broader implications for the financial industry as a whole. This in-depth investigation of technological adaptation in HDFC and Karur vysya banks aims to provide insight on the driving forces, possibilities, and challenges that financial institutions face on their path to a digitally transformed future. It emphasises the importance of connecting technological initiatives with business goals and customer-centric methods to guarantee that banks not only survive but prosper in a technologically challenged world.

Statement of the Problem

The banking industry's growing dependence on technology poses crucial challenges concerning bank employee's technological adaptation. To meet the evolving needs of the digital banking sector, these difficulties include the need for up skilling and rescaling, resolving resistance to change, optimising worker productivity, assuring seamless integration of technology tools, and building a culture of continuous learning. In this study, an attempt has been made to analyse the technological adaptation among the bank employees of HDFC Bank and Karur vysya bank and how far they have been adapted to the transformation.

Scope of the Study

This study focuses on the current status of technological adaptation among bank employees, identifies skill gaps and investigates the impact of technology on workforce efficiency. Employee

resistance, integration issues, the function of a learning culture, customer impacts, and regulatory compliance are also investigated. In the digital banking era, the study provides concrete recommendations for banks to improve employee's technology adaption.

Objective of the Study

To analyse the technological adaption among bank employees of selected banks

Review of Literature

(**Simran Jit Kaur.et.al**)¹ has made a qualitative study on "Adoption of digital banking channels in an emerging economy: exploring the role of in-branch efforts" the paper was carried out to examine the impact of banks' in-branch efforts on enticing clients in India to switch from traditional branch banking to digital banking. Interviews with senior bank executives from India's public and private sector banks were conducted for the study and qualitative content analysis was performed to categorise interview responses into four key themes.

(**Sana Arz Bhutto, Yasir Jamal b, Saif Ullah**)² has made an investigation on the relationship between "FinTech adoption, service innovation, human resource competency, and business growth" in US banks. The study used a quantitative method, with survey questionnaires distributed to 55 banks and 311 replies collected. The data was analysed using Structural Equation Modelling (SEM).It emphasises how human resource competencies like adaptation and decision-making drive Fintech adoption. Furthermore, it implies that service innovation helps to business growth. The article highlights the need of good human

resource practises in developing employee capabilities, optimising performance, and eventually encouraging FinTech adoption. It emphasises the study's contribution to existing knowledge by emphasising the role of service innovation in mediating the relationship between FinTech adoption and business growth.

(**Smieley, S. Ruth, Grace, S. Esther**) has explained "Effect of Financial Technology on the Financial Performance of Selected Banks in India". The research focuses on the impact of Fintech components such as mobile banking, internet banking, and agency banking, as well as economic aspects such as economic growth rate, currency rate (Indian Rupee), and interest rates, on the financial performance of the banking industry. The study lasted five years, from April 2018 to March 2022, and analysed secondary data. The findings show that mobile banking, online banking, and agency banking positively influence the financial performance of banks. In conclusion, the study recommends that banks invest in Fintech to improve operational efficiency, encourage customer adoption of these technologies, allocate resources for technological infrastructure enhancement, and expand agency networks, particularly in rural areas.

Research Methodology

The study is based on both primary and secondary data. The Primary Data relating to technological adaption among bank employees are collected from bank employees of HDFC bank and Karur vysya Bank through structured questionnaire. The actual responses collected were 74 and after eliminating the missing and invalid responses, a sample size of 60 respondents

has been taken for the study by adopting purposive sampling technique. The Secondary data is collected from relevant articles and websites.

Analysis and Interpretation:

Simple Percentage Analysis

Percentage analysis is carried out for all the demographic questions specified in the questionnaire. The percentage analysis is used mainly for standardization and comparison.

Table 1
Simple Percentage Analyses

Demographic profile		Frequency	Percentage
Gender	Male	26	43.3
	Female	34	56.7
	Total	60	100.0
Age	Below 25	16	26.7
	26-35	38	63.3
	36-45	2	3.3
	Above 45	4	6.7
	Total	60	100.0
Educational qualification	Undergraduate	32	53.3
	Post graduate	17	28.3
	Others	11	18.3
	Total	60	100.0
Average Annual income	Below 30000	10	16.7
	30001-60000	21	35.0
	60001-90000	17	28.3
	Above 90000	12	20.0
	Total	60	100.0
Work Experience	Less than 1 year	10	16.7
	1-3	21	35.0
	4-6	17	28.3
	More than 6 years	12	20.0
	Total	60	100.0

Source: Computed from Primary data

Gender

Out of 60 respondents, 43.3 per cent of the respondents are male and 56.7 per cent of the respondents are female. Hence, female respondents are more.

Age

Out of 60 respondents, 26.7 per cent respondents are below 25, 63.3 per cent respondents are between 26-35, 3.3 per cent respondents are between 36-45, 6.7 per cent respondents are above 45. Hence, majority of the respondents are between 26-35.

Educational qualification

Out of 60 respondents, 53.3 per cent respondents are undergraduate, 28.3 per cent respondents are post graduate and 18.3 per cent respondents are others. Hence, majority of the respondents are under graduate.

Average Annual income

Out of 60 respondents, 16.7 per cent respondents are Below 30000, 35 per cent respondents are between 30001-60000, 28.3 per cent respondents are between 60001-90000 and 20 per cent respondents are above 90000. Hence, majority of the respondents are between 30001-60000.

Work Experience

Out of 60 respondents, 16.7 per cent respondents are less than 1 year, 35 per cent respondents are 1-3, 28.3 per cent respondents are 4-6 and 20 per cent respondents are more than 6 years. Hence, majority of the respondents are 1-3 years work experience.

t-Test - Demographic Variable of the Respondents and their technological

adaption on reasons how the respondents are adapted using technology

Ho: t-test has been used to test whether the scores obtained for the technological adaption on reasons how the respondents are adapted using technology has no significant difference among the respondents classified based on the demographic factor with the following null hypothesis.

Table 2 t-test

Demographic Factors		N	Mean	SD	t-value	Sig	S/NS
Gender	Male	26	2.7269	.79577	.926	.359	NS
	Female	34	2.5441	.70418			

Source: Computed from Primary data

The above table results show that there is no significant difference between gender (.359) their technological adaption on reasons how they are adapted using technology. Thus, it is inferred that the significant value is greater than 5% level of significance. Hence, the null hypothesis is accepted.

ANOVA - Demographic Variables of the Respondents and their technological adaption among bank employees using technology

Ho: Anova has been used to test whether the scores obtained for the technological adaption among bank employees has no significant difference among the respondents classified based on the demographic factor with the following null hypothesis.

Table 3 Analysis of Variance

Demographic Factors	N	Mean	SD	F	Sig	S/NS
---------------------	---	------	----	---	-----	------

Age	Below 25	16	2.6563	.96053	.594	.622	NS
	26-35	38	2.5579	.64750			
	36-45	20	3.2000	1.13137			
	Above 45	42	2.8250	.59090			
Educational qualification	Undergraduate	32	2.5625	.83656	.304	.739	NS
	Post graduate	17	2.6471	.70898			
	Others	11	2.7636	.51044			
Average Annual income	Below 30000	10	2.6100	.71407	.580	.630	NS
	30001-60000	21	2.5571	.86981			
	60001-90000	17	2.5353	.53144			
	Above 90000	12	2.8750	.82366			
Work Experience	Less than 1 year	10	2.6100	.71407	.580	.630	NS
	1-3	21	2.5571	.86981			
	4-6	17	2.5353	.53144			
	More than 6 years	12	2.8750	.82366			

Source: Computed from Primary data

There is no significant difference among age (.622), Educational qualification (.739), Average annual income (.630), Work experience (.630) of the respondents and their technological adaption among bank employees

Age

The mean score is found to be high in age group of 36-45 years. There exist marginal awareness score among age group of above 45 and below 25 years and lowest mean score has been found in age group 26 - 35years. The P value (.622) of F ratio (.594) shows that there is no significant difference in the respondents level of of technological adaption among

bank employees when respondents are classified based on the age group. Therefore, the null hypothesis is accepted.

Educational qualification

The mean score is found to be high in group of others followed by post graduate and lowest mean score has been found in group undergraduate. The P value (.739) of F ratio (.304) shows that there is a no significant difference in the respondents level of technological adaption among bank employees when respondents are classified based on the educational qualification. Therefore, the null hypothesis is accepted.

Average Annual income

The mean score is found to be high in group of respondents earning Above 90000 followed by below 30000 and 30001-60000 and lowest mean score has been found in 60001-90000. The P value (.630) of F ratio (.580) shows that there is no significant difference in the respondents level of technological adaption among bank employees when respondents are classified based on the average annual income. Therefore, the null hypothesis is accepted.

Work Experience

The mean score is found to be high in group of respondents more than 6 years followed by less than 1 year and 1-3 years and lowest mean score has been found in 4-6 years. The P value (.630) of F ratio (.580) shows that there is no significant difference in the respondents level of technological adaption among bank employees when respondents are classified based on the work experience. Therefore, the null hypothesis is accepted.

Findings

Simple Percentage Analysis

The female respondents are more and the majority of the respondents are between the age group of 26-35. Mostly, the respondents are under graduate employees. Majority of the respondents are earning their average annual income between 30001 - 60000 and most of the respondents are earning according to the work experience of 1-3 years.

t-test

There is no significant difference between gender their technological adaption on reasons how they are adapted using technology. Thus, it is inferred that the significant value is greater than 5% level of significance. Hence, the null hypothesis is accepted.

ANOVA

There is no significant difference among Age, Educational Qualification, Average annual income, Work experience of the respondents and their technological adaption among bank employees. Hence, the null hypothesis is accepted.

Suggestions

- More technological skill development programmes to be conducted for all sector employees.
- The troubleshooting techniques can be taught to employees so that the server problems can be overcome.
- The bank can continuously monitor technological adaptation trends over time to identify any shifts or emerging patterns. This will help them to stay proactive in addressing potential challenges or opportunities related to technology.

Conclusion

The banking industry's rapid technological evolution has created both possibilities and challenges for bank personnel. In light of these findings, banks must commit to investing in the technological adaptation of their employees. This includes not only providing the essential training but also fostering an environment that fosters creativity, cooperation, and a proactive attitude to embracing technology. To summarize, the banking industry's digital transformation requires a flexible and proficient in technology employees. Employees in the banking industry must constantly improve their abilities, embrace change, and priorities customer-centric approaches. Banks can fully realize the potential of technology by cultivating a learning culture, eliminating opposition, and guaranteeing strong integration. Employees play a critical role in data protection with enhanced security measures and compliance. Finally, good technology adaptation enables banks to create outstanding customer experiences and prosper in a constantly changing financial world. Banks that focus and help their employees' technological adaptation will be better positioned to prosper in the dynamic digital era, providing superior services to customers and remaining competitive in an ever-changing landscape.

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APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGY IN BUSINESS – A STUDY IN ERODE

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Abstract

As technology continues to evolve, businesses that strategically harness the power of ICT are poised to thrive in the dynamic and competitive landscape of the modern business world. In essence, the integration of ICT in business is a double-edged sword, offering unprecedented opportunities for growth and efficiency while necessitating careful consideration of security implications. The importance of using Information Communication Technology (ICT) such as Enterprise Resource Planning (ERP) and electronic commerce (e-commerce) by business firms cannot be overstated. ICT supports online transactions, electronic payments and digital marketing, enabling businesses to reach a global audience and conduct transactions efficiently. The application of ICT in business contributes to improved communication, streamlined processes, increased productivity and better decision-making, ultimately enhancing overall business performance and competitiveness. The communication tools for their business, Microsoft Teams, Zoom and Slack. Internal Communication tools primarily used for business such as E-mail, Instant Messaging, In-person meetings and Video Conferencing.

Keyword(s): *ICT, ERP, e-commerce, Communication tools, video conferencing etc.,,*

Introduction

Businesses use ICT for effective data storage, retrieval and analysis, helping in informed decision-making and improving overall operational efficiency. ICT facilitates efficient communication through emails, video conferencing and

messaging platforms, enhancing collaboration and reducing communication barriers. It facilitates efficient communication through emails, video conferencing and messaging platforms, enhancing collaboration and reducing communication barriers. Businesses utilize

ICT tools for managing customer interactions, analyzing customer data and enhancing overall customer satisfaction and loyalty. ICT enables businesses to automate repetitive tasks, streamline processes and increase productivity, leading to cost savings and improved accuracy. ICT helps in optimizing supply chain operations through real-time tracking, inventory management and coordination among various stakeholders. ICT supports HR functions, including recruitment, employee training, performance management, and payroll processing. It is crucial for implementing robust cyber security measures to protect sensitive business data and ensure the integrity of digital operations.

Usefulness of ICT In Business

Information and Communication Technology (ICT) is highly useful in business for several reasons. ICT facilitates instant communication, allowing businesses to connect with clients, partners and employees globally, fostering collaboration and quick decision-making. ICT enables the automation of repetitive tasks, reducing manual errors, improving efficiency and freeing up time for employees to focus on more strategic aspects of their work. ICT systems help businesses organize, store, and analyze vast amounts of data, providing valuable insights for informed decision-making and strategic planning. Through the internet and digital platforms, businesses can expand their reach to a global audience, tapping into new markets and customer segments. Automation, streamlined processes, and digital communication

contribute to cost savings, making businesses more financially sustainable.

ICT tools, such as customer relationship management (CRM) systems, allow businesses to better understand and engage with their customers, enhancing overall customer satisfaction and loyalty. ICT supports businesses in gathering and analyzing market data, helping them stay informed about industry trends, competitor activities and customer preferences. ICT plays a crucial role in optimizing supply chain processes, ensuring timely and efficient delivery of products or services. ICT encourages innovation by providing platforms for research, development and implementation of new ideas. It also enhances business flexibility, allowing quick adaptation to changing market conditions. In essence, the usefulness of ICT in business lies in its ability to enhance communication, streamline operations, support data-driven decision-making and foster innovation, ultimately contributing to the overall success and competitiveness of the business.

**Diagram 1
ICT in Business**

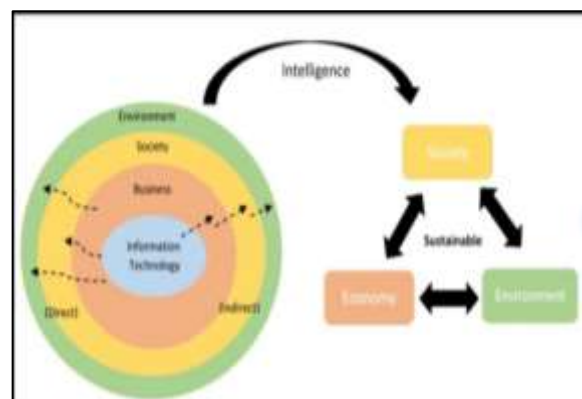
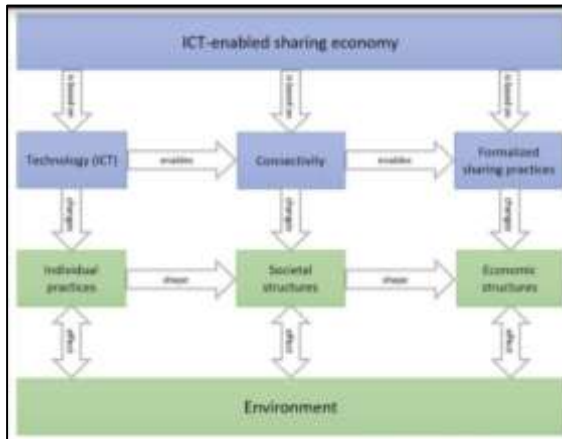


Diagram 2
ICT Enabled sharing Economy



Statement of the Problem

The integration of Information and Communication Technology (ICT) in business, while offering substantial benefits, presents a set of challenges that require careful consideration and strategic addressing. The rapid expansion of digital platforms and interconnectivity exposes businesses to an increased risk of cyber threats. Addressing vulnerabilities in cyber security is paramount to safeguard sensitive data, intellectual property, and maintain the trust of stakeholders. The advanced evolution of technology requires continuous up skilling of the workforce. Businesses face challenges in addressing skill gaps and providing adequate training to employees to leverage emerging technologies effectively. Disparities in access to ICT tools and resources may lead to a digital divide, limiting the participation of certain segments of the workforce or customer base. Ensuring equitable access to technology is essential for fostering inclusivity and preventing exclusion. Hence the researcher has made an attempt to find solutions to the above problem in the study.

Scope of the Study

Erode is a city located in the Indian state of Tamil Nadu. It is the administrative headquarters of the Erode District. Erode is situated on the banks of the Bhavani River and is known for its agricultural and textile activities. The city is part of the Kongu Nadu region in western Tamil Nadu. Erode is renowned for its textile and garment industries, earning it the nickname "Textile City of India." The region is a major producer of handloom and powerloom textiles, contributing significantly to India's textile market. The surrounding areas of Erode are predominantly agricultural, with a focus on the cultivation of crops such as turmeric, coconut and banana. Agriculture plays a vital role in the local economy. Erode is a city that blends its traditional roots with modern economic activities, particularly in the textile industry. Its strategic location, coupled with a strong focus on agriculture and trade has contributed to its prominence in the region.

Review of Literature

Though many previous studies are conducted on application of ICT in various business related activities, there were only very few studies that are conducted in Erode District.

Research Methodology

Research Type	Analytical Research
Sampling Technique	Simple Random Sampling
Sample Size	50
Sample Unit	Erode
Source of Data collection	Primary Data
Tools for Data Collection	Questionnaire

Findings of the Study

- It is clear from the study that 68% of the respondents are male and the remaining 32% of the respondents are female.
- It is vivid that 31% of the respondents are between 41 to 50 years, 22% of them are between 51 to 60 years, 20% of them are above 61 years, 15% of them are between 31 to 40 years and remaining 12% of them are below 30 years.
- A majority of 70% of the respondents is married, 21% of them are unmarried, 6% are single and 3% are divorced.
- Thirty two percent of the respondents are using ICT in their business operation between 3 to 5 years, 28% are using it below 3 years, 21% are using it between 5 to 7 years and 19% of them are using it above 7 years.
- Microsoft Office Suite is the current ICT infrastructure for 53% of the respondents, Google Workspace is for 29% of the respondents and 18% of them use the combination of both.
- As the respondents have chosen more than one option the total responses were 184 and 38% of them use Enterprise Resource Planning (ERP) systems as their current ICT tools or techniques for their business, 32% of them use Customer Relationship Management (CRM) software, 16% of them use Cloud computing services and 14% of them uses Data Analytics Tools.
- Among 150 respondents, 46% of them allocates more than 10% as their ICT Budget allocation, 31% of them

allocates between 5% to 10% and the rest 23% allocates less than 5% for their ICT budget allocation.

- As the respondents have chosen more than one option the total responses were 161. Microsoft Teams (48%) is mostly used as the communication tools for their business, Zoom (38%) and Slack (14%).
- From the analysis it is known that 39% of the respondents Proposed to use Artificial Intelligence to anticipate integrating into their business in the next few years, 27% of them IoT (Internet of Things), 14% Virtual Reality, 11% Augmented Reality and 9% Block Chain.

Table 1
Factors Contributing to ICT in Business

Factors	S A	A	N	D A	SD A	To tal	Ra nk
Use of ICT influenced your business's environmental sustainability efforts	78	54	9	5	4	150	1
Score	390	216	27	10	40	647	
Adoption of ICT affected your business's ability to adapt to market changes and trends	58	42	25	15	10	150	5
Score	290	168	75	30	100	573	
Return On Investment (ROI) of ICT initiatives in your business	53	49	13	20	15	150	9

Score	265	196	399	400	15	555	
Extent of use of mobile applications benefited your business operations	63	44	17	22	4	150	3
Score	315	176	511	444	4	590	
Integration of e-commerce solutions	59	43	17	19	12	150	6
Score	295	172	511	388	12	568	
Use of ICT impacted communication and collaboration within your organization.	49	57	11	20	13	150	7
Score	245	228	333	400	13	559	
Implementation of cyber security measures to protect business data	23	76	15	22	14	150	12
Score	115	304	455	444	14	522	
Extent of use (awareness) cloud computing services for data storage and management	37	33	27	32	21	150	15
Score	185	132	811	644	21	483	
Handling data privacy	46	53	21	13	17	150	11

Source: Calculated Data

From the analysis it is found from the Table 4.36(a) that, the various factors that affects the use of ICT in business are ranked as given below. ICT influenced the business environmental sustainability

Score	230	212	63	26	17	548	
Adoption of ICT impacted efficiency in your business processes	27	39	40	17	27	150	16
Score	135	156	120	34	27	472	
Integration and Compatibility	36	50	17	29	18	150	13
Score	180	200	51	58	18	507	
Level of Satisfaction with the existing ICT infrastructure	50	64	16	11	9	150	4
Score	250	256	48	22	9	585	
Contribution of mobile app to business operations	36	49	24	13	28	150	14
Score	180	196	72	26	28	502	
Beneficial for remote collaboration	60	41	12	21	16	150	8
Score	300	164	36	42	16	558	
Employees resistance to technological changes	51	48	19	14	18	150	10
Score	255	192	57	28	18	550	
Overall satisfaction	64	50	10	16	10	150	2
Score	320	200	30	32	10	592	

efforts which are ranked as one by the respondents; Overall satisfaction with second rank, mobile apps benefits the business operation with third rank and so on. The factors that occupy least rank are

the efficiency of the business increases and the lack of awareness of cloud system in business ICT usage.

Conclusion

Information and Communication Technology (ICT) has become a cornerstone in modern business operations, profoundly influencing various facets of organizational dynamics. The widespread adoption of ICT brings about transformative changes, shaping the way businesses communicate, operate, and strategize. ICT significantly enhances operational efficiency through task automation, streamlined processes and improved workflow management, contributing to increased productivity and cost-effectiveness. Businesses leverage ICT to transcend geographical boundaries, tapping into global markets through e-commerce, online platforms and digital marketing, thereby expanding their reach and opportunities.

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IMPACT OF HR POLICIES ON THE SATISFACTION OF EMPLOYEES

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Abstract

When creating policies, management must consider the organization's and its employees' basic requirements. The management must evaluate its core beliefs and consider how other firms conduct business. All employees must be treated consistently throughout the company according to established procedures. Policies act as performance benchmarks. Favoritism and prejudice are being minimized. Even when senior executives come and go, activity will always continue. It is possible to assess how effectively the organization's members follow the professional aims by comparing actual outcomes with the policy. Effective strategies foster loyalty and motivation among workers. This is particularly true when regulations support employees' advancement within the company and uphold long-standing ideals of fairness and fair play. Conflicts between groups and between individuals can be resolved with the support of sound policies. The researcher gathered data from 100 sample respondents to examine the study's aims while employing statistical methods such as percentage analysis and the Chi-square test. Four elements were found in the survey: job security, relationships and rewards, business culture, and work environment.

Keywords: *Employee Satisfaction, Human Resource Policies, Job security, Organizational Culture, Work-life balance.*

Introduction

Human resource policies form codes of fundamental values and respect that "formulate, redefine, break into details and decide several actions" that control how employees interact with one another to

achieve organizational goals. It is no secret that line managers, as supervisors, form crucial to successfully implementing HR regulations. With a few notable exceptions, supervisors' influence on the course and results of HR interventions has

seldom been measured statistically (Kuvaas & Dysvik, 2010). In their study, the Supervisor's active participation in the intervention process is necessary for the effective execution of human resource (HR) policy. It looks at how views of the supportiveness of the organizational family get altered by perceived support from supervisors. Human resource practices of employee development boosted employee work efforts in the presence of top authority. They were supported by a three-wave longitudinal study conducted at a professional services business that formally included supervisors in the work-life intervention process. Over time, supervisor support for implementing policies strengthened workers' job engagement and reduced their intentions to leave by influencing their favorable opinions of the work-home culture. It explores the usefulness of the findings and offers recommendations for future HR intervention and policy design. The study's main aim is to examine employees' satisfaction levels.

Review of Literature

An organization cannot operate without its human resources. Organizations need goals for their members to succeed (Niati et al., 2021). One explanation for this is the infrequency with which supervisors are given explicit, active roles and low-intervention designs, particularly those about the operation of associated policies. Therefore, further evidence-based studies regarding the significance of supervisor support for effective HR implementation are required. Business development introduction: Every firm organization has a more significant

competitive edge due to society's expanding advancement. Businesses must raise their productivity to remain competitive domestically and globally and keep up with societal developments to stay in the market (Aydogan et al.) Development is an improvement-oriented movement. In order to accomplish these improvements, all available human resources and logic must be mobilized (Shah et al., 2020).

As a result, when businesses in the twenty-first century expand their innovation, it is vital to assess how well human resource management is doing for a company to ensure its success. Some businesses frequently struggle to apply management to their workforce, mainly due to their inability to implement comprehensive HRM to meet organizational objectives. This demonstrates effective HR management (DeNisi & Murphy, 2017).

Scope of the Study

Human resources are the most critical assets of any firm. Employee performance, primarily due to the company's HR policy, determines most of the business's total performance. Thus, the study's broad reach will aid the company's success in global competitiveness. The main aims of the research include an implementation strategy for a human resource policy and an analysis and evaluation of the organization. Workers contribute to every organization's success. Employers are required to uplift workers and carry with all HR regulations. This survey has covered a variety of criteria that assess HR practices and employee satisfaction. The work environment,

company culture, relationships and rewards, and job security are included. Employee satisfaction and a greater interest in the job increase when these requirements are met. These HR strategies are implemented, and the results show that job happiness and productivity go hand in hand.

Objectives of the Study

- To analyse the satisfaction level of HR policy implementation by Nihara Resort and Spa.

Research Methodology

The Nihara Resort and Spa's HR policies and practices are examined in the proposed research. The primary and secondary data used in the study are both sources. Both primary data and secondary data were used as sources in the study. Secondary data will be gathered from various published sources, such as research papers, manuals, publications, journals, articles, websites, etc. The Nihara Resort and Spa's 100 staff will be included in the research. Since respondents from Nihara Resort and Spa were chosen randomly, simple random sampling would be the sampling strategy for this study. Data from the respondents will be gathered using a structured questionnaire as part of a survey. Several statistical methods are used for data analysis, tabulation, and interpretation, including percentage analysis and chi-square test.

Results and Discussion

Table 1

Demographic Profile of the Respondents

Variables	Categories	N	%
Age	18-25	26	26
	25-35	59	59
	35-45	12	12

	45-55	3	3
Educational Qualification	SSLC	31	31
	Graduate	24	24
	Professional	45	45
Marital Status	Married	66	66
	Unmarried	34	34
Family Size	0-2	33	33
	2-4	42	42
	4-6	20	20
	More than 6	5	5
Monthly Income	Below 15000	45	45
	15000 – 20000	31	31
	20000 – 25000	20	20
	Above 25000	4	4
Years of Experience	Below 2 years	23	23
	2 to 5 years	34	34
	5 to 10 years	46	46
	Above 10 years	7	7

(Source: Computed from Primary Data)

The above table shows the demographic profile of 100 respondents considering age, educational qualifications, marital status, family size, monthly income, and years of experience. The table shows that 26 percent of respondents are aged between 18 and 25, 59 percent are between 25 and 35, 12 percent are in the 35-45 age category, and the remaining 3 percent are between 45-55 age groups. Based on educational qualifications, 31 percent of respondents are SSLC, 24 percent are graduates, and 45 percent have professional qualifications. Based on marital status, 66 percent of respondents are married, and 34 percent are unmarried. According to family size, 33 percent are 0-2 members, 42 percent are 2-4 members, 20 percent are 4-6 family members, and

the remaining 5 percent respondents are more than 6 members. Based on monthly income, 45 percent of respondents are below 15,000, 31 percent are between 15,000 and 20,000, 20 percent are between 20,000 and 25,000, and the remaining 4 percent are above 25,000 monthly incomes. Based on years of experience, 23 percent of respondents are below 2 years of experience, 34 percent have experience between 2 and 5 years, 46 percent are between 5 and 10 years, and the remaining 7 percent are above 10 years of experience.

Table 2
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.695
Bartlett's Test of Sphericity	Approx. Chi-Square	890.255
	Df	66
	Sig.	.000

(Source: Computed from Primary Data)

The table shows how the KMO measure is observed to be 0.695, higher than the threshold value 0.5. Hence, it could be interpreted that there is no error in 69.5% of the sample, and there may be a remaining 30.5% chance for some error. Bartlett's Test of Sphericity is found to have a value of 890.255 with a p-value of .000 ($p < 0.05$, $df = 66$). It has been concluded that the data collected for the quality of work-life factors of female employees is appropriate for factor analysis. Factor analysis was used to remove the redundant variables from the survey data and to reduce the number of variables into a definite number of dimensions. The factor analysis used the principal component extraction method with varimax rotation.

Table 3
Total Variance Explained

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.976	41.465	41.465	4.012	33.429	33.429
2	1.989	16.578	58.043	1.941	16.172	49.602
3	1.453	12.105	70.148	1.912	15.937	65.539
4	1.143	9.526	79.674	1.696	14.135	79.674

(Source: Computed from Primary Data)

After factor analysis, 12 variables were reduced to 4 components, such as Work Environment, Organizational Culture, Relations and Rewards, and Job Security, which explained the cumulative variance for the components 33.429%, 49.602%, 65.539%, and 79.674%, respectively.

Table 4
Rotated Component Matrix

	Rotated Component Matrix			
	Component			
	1	2	3	4
WE1			.797	
WE2			.868	
WE3			.479	
OC1		.918		
OC2		.889		
RR1				.755
RR2				.838
JS1	.726			
JS2	.935			
JS3	.843			
JS4	.896			

JS5	.893			
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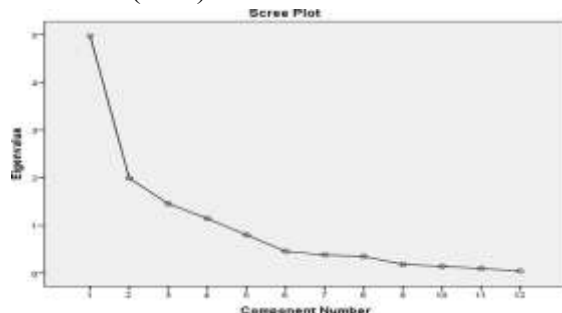
(Source: Computed from Primary Data)

Factor 1: The first factor is named ‘**Work Environment**’ with three associated variables: ‘Work environment of the company is good and highly motivating’ (.797), ‘Working conditions are good in the company’ (.868), and ‘It is hard to take time off during work to take care of personal matters’ (.479).

Factor 2: The second factor is called ‘**Organizational Culture**’ with two associated variables: ‘There is cooperation among all the departments for achieving goals’ (.918), and ‘The wage policies adopted by the company are excellent’ (.889).

Factor 3: The third factor is named ‘**Relations and Rewards**’ with two associated variables: ‘The relationship between managers and employees are good’ (.755) and ‘Company does a good job of linking rewards to job performance’ (.838).

Factor 4: The fourth factor is named ‘**Job Security**’ with five associated variables as ‘The company provides good welfare facilities’ (.726), ‘I feel comfortable and satisfied with my job’ (.935), ‘I feel quite secure about my job’ (.843), ‘Company allows a flexible time option’ (.896) and ‘I find my work quite stressful’ (.893).



The scree plot under factor analysis is reported in Table 4. In this graph, the four factors consisting of variables have been shown.

Table 5
Reliability Statistics

Cronbach's Alpha	N of Items
.832	12

The questionnaire's reliability was evaluated using Cronbach's alpha and is presented in Table 5. The result shows that the quality of work-life factors has an alpha value of 0.832, higher than 0.7. Thus, further analysis can be done. Chi-Square Analysis for Testing the Association between Demographic Variables and Quality Of Work-Life Factors. Chi-Square Analysis Between profile of the employees and work environment. **H0:** *There is no association between the work environment and the demographic profile of the employees.*

H1: *There is an association between the work environment and the demographic profile of the employees.*

Table 6

Factors	Pearson Chi-Square	Sig.
Age	63.462	.000
Educational Qualification	29.694	.003
Marital Status	35.802	.000
Family Size	11.075	.523
Monthly Income	79.694	.000
Years of Experience	31.14	.002

(Source: Computed from Primary Data)

The table gives the Chi-Square analysis results between the selected employee profile and work environment factors. The chi-square values were 63.462, 29.694, 35.802, 11.075, 79.694, and 31.14 for age, educational qualification, marital status, family size, monthly income, and years of experience, respectively. At the same time, the p-values were .000, .003, .000, .523, .000, and .002 for the above demographic variables in this study. It indicated that the p-value for all the selected demographic variables is below 0.05 except for family size, whose value is above .05. Thus, it can be concluded that family size is not associated with the work environment. All other demographic factors are associated with the work environment. Chi-Square Analysis Between profile of the employees and organizational culture.

H0: *There is no association between the organizational culture and the demographic profile of the employees.*

H1: *There is an association between the organizational culture and the demographic profile of the employees.*

Table 7

Factors	Pearson Chi-Square	Sig.
Age	12.381	.044
Educational Qualification	26.55	.000
Marital Status	4.878	.087
Family Size	2.032	.730
Monthly Income	42.314	.000
Years of Experience	32.572	.000

(Source: Computed from Primary Data)

The results of the Chi-Square analysis between the selected profile of

the respondents and the organizational culture of the sample respondents are displayed in Table 7. It shows that the chi-square values were 12.381, 26.55, 4.878, 2.032, 42.314, and 32.572, with the p-values of .044, .000, .087, .730, .000, and .000 for age, educational qualification, marital status, family size, monthly income, and years of experience, respectively. It indicated that out of the six tested factors, the p-value of 4 selected factors was less than .05. Hence, the null hypothesis (H₀) is rejected. It is concluded that there is an association between organizational culture and age, employee's educational qualifications, monthly income, and years of experience. At the same time, there is no association between organizational culture, marital status, and family size.

Chi-Square Analysis Between profile of the employees and relations and rewards.

H0: *There is no association between relation and rewards and the demographic profile of the employees*

H1: *There is an association between relation and rewards and the demographic profile of the employees.*

Table 8

Factors	Pearson Chi-Square	Sig.
Age	52.612	.000
Educational Qualification	16.223	.003
Marital Status	6.199	.044
Family Size	3.16	.531
Monthly Income	34.404	.000
Years of Experience	20.412	.000

(Source: Computed from Primary Data)

The results of the Chi-Square

analysis between the selected profile of the respondents and the sample respondents are displayed in Table 8. It shows the value of chi-square age, educational qualification, marital status, family size, monthly income, and years of experience. It indicated that out of the six tested factors, the p-value of 5 selected factors was less than .05. Hence, the null hypothesis (H₀) is rejected. It is concluded that there is an association between relations and rewards and the profile of the employees, such as age, educational qualification, marital status, monthly income, and years of experience. No association exists between relations and rewards and the employees' family size.

Chi-Square Analysis Between profile of the employees and job security.

H₀: *There is no association between job security and the demographic profile of the employees*

H₁: *There is an association between job security and the demographic profile of the employees.*

Table 9

Factors	Pearson Chi-Square	Asymp. Sig. (2-sided)
Age	42.818	.000
Educational Qualification	24.148	.000
Marital Status	15.626	.000
Family Size	5.422	.053
Monthly Income	52.137	.000
Years of Experience	28.041	.000

(Source: Computed from Primary Data)

The results of the Chi-Square analysis between the selected profile of the respondents and the sample respondents

are displayed in Table 9. It shows the value of chi-square age, educational qualification, marital status, family size, monthly income, and years of experience. It indicated that out of the six tested factors, the p-value of 5 selected factors was less than .05. Hence, the null hypothesis (H₀) is rejected. It is concluded that there is an association between job security and the profile of the employees, such as age, educational qualification, marital status, monthly income, and years of experience. No association exists between job security and the employees' family size.

Conclusion

This research is a sincere effort to identify HR rules and how Nihara Resort and Spa implements them. Before a person leaves a company, the employee's requirements must be recognized and met. The company risks losing bright workers to rivals if it does nothing. Thus, ensuring employee happiness is essential for every firm. The majority of employees are happy with the HR rules and how they are being implemented, according to the report. The majority of the employees are satisfied with the salary structure. The organization provides professional programs, working conditions, and allowances. They are also satisfied with the organization's employer-employee relationship and communication channel. However, only 40% of the employees still get to participate in decision-making. Also, most employees are not provided with welfare measures. Suppose the firm concentrates on the findings and suggestions of their survey. We hope the organization can further satisfy their labour and obtain good results.

Limitations and Scope for Further Research

This study explores the determinants of HR policies and their implementation at Nihara Resort and Spa. The researchers consider only four factors for measuring the satisfaction level. However, other factors may also influence the satisfaction of employees. So, further studies may be conducted with the inclusion of more variables. The researcher collected data from the Ernakulum district, which might affect the generalizability of the findings. The criterion of satisfaction is different. However, only a few limited variables have been included in this study. Another drawback of this study is that satisfaction levels could also vary when time and place change.

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ENVIRONMENTAL ACCOUNTING: METHODOLOGY AND APPLICATION

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Abstract

The study of environmental accounting aims to quantify, assess, and disseminate the expenses associated with an organization's or the country's economic impact on the environment. Expenses include waste management fees, environmental fines, penalties, and taxes, the cost of purchasing pollution control systems, and the expense of cleaning up or remediating contaminated sites. The inconsistent interpretation Innovative solutions alleviate the burden of environmental narrative accounting standards. Using volunteer data, corporate governance systems—mainly audit committees—have investigated the relationship between environmental narratives and financial reporting. To be financially successful in the long run, firms need to use environmental accounting. Additionally protect the environment for coming generations.

Keywords: *Environmental Accounting, Ecological accounting, Gross Domestic Product.*

Introduction

The goal of environmental accounting, which is a subset of accounting proper, is to include data on the economy and the environment. Through the System of Integrated Environmental and Economic Accounting, a satellite system to the National Accounts of Countries, it can be carried out at the

corporate or national economic levels (among other things, the National Accounts produce the estimates of gross domestic product, otherwise known as GDP).

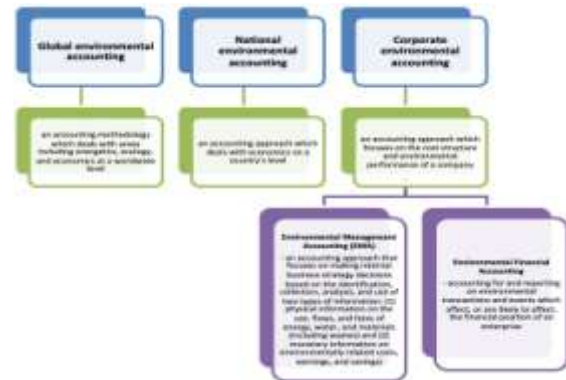
The study of environmental accounting aims to quantify, assess, and disseminate the expenses associated with an organization's or the country's economic

impact on the environment. Expenses include waste management fees, environmental fines, penalties, and taxes, the cost of purchasing pollution control systems, and the expense of cleaning up or remediating contaminated sites.

Ecological accounting and ecologically differentiated conventional accounting make up an environmental accounting system. Environmentally differentiated accounting calculates the financial impact of the environment on a business. Ecological accounting quantifies a company's impact on the environment using tangible metrics.

Since the 1970s, when the idea of sustainable human society development first emerged, environmental accounting (EA) has grown to be a unique area of accounting study. Since the early 1970s, environmental accounting (EA) has been used as a tool to reflect and oversee economic activity related to the environment. This is represented through study on the conversion of social costs in regulating pollution and also a paper on accounting problems of pollution which has started the prelude to the EA research (Zhu Xueyi, 1999). Concern over environmental issues increased during the 1992 United Nations Environment and Development Conference and after the UN World Environment and Development Committee's 1987 report, "Our Common Future." Since then, the researchers have conducted a wide range of studies and talks about EA. An important development in EA is the 1990 study "Green Accounting: The Accounting Profession after Pearce" by Rob Grey. It showed that EA research has emerged as the primary

topic of discussion in the international academic circles. EA's hallmark is "accounting about increase or decrease on artificial assets and natural assets, most importantly accounting of conversion between the two assets" (Grey, 1990). In other words, it focuses on identifying and analysing the changes that occur between artificial and natural assets.



The importance of applying and disseminating EA knowledge has caused scholars worldwide to give recent studies on the subject considerable attention. According to the findings of those researches, environmental performance can raise stakeholder satisfaction, enhance brand equity, increase firm value, and lower capital costs. There was extremely minimal chance of bankruptcy for the companies with a stronger prior record of excellent environmental performance (Lin & Dong, 2018). According to studies conducted by Cai et al. (2016) and Fuadah et al. (2019), companies that exhibit superior environmental performance are associated with lower risk and greater organisational value. According to Oikonomou et al. (2014), environmental performance can be viewed as a means in venture processes that have significant relationships with various stakeholders.

Yeh et al. (2019) claim that because Chinese companies are more environmentally conscious, their cost of borrowed financing is lower. When investing in improving environmental responsibility performance, it will significantly lower the equity financing costs for organisations (Xu et al., 2015). Capital limitations are less severe for the companies that perform the best in terms of environmental stewardship (Salvi et al., 2018).

Objectives of the Study

Environmental accounting assists businesses in making decisions that take the environment into account. These are a few of environmental accounting's goals.

- 1) To investigate and explore various Environmental Accounting aspects impacting on Profitability of Companies.
- 2) To examine the connection between environmental accounting, return on assets, and return on capital employed.

Methodology

The study is based on secondary data collected from various Articles, Journals and Websites.

Statement of the Problem

The issues with EA and EMA include inadequate definitions of environmental costs, managers' reluctance to embrace EMA, a lack of coordination between functional areas, a lack of a legal framework, inadequate recommendations and the pressure to implement them, etc. It is acknowledged that many environmental costs are incurred in overhead accounts, such as energy and water costs, waste treatment costs, stationery costs, insurance from holding hazardous substances, or regulatory costs associated with specific

emissions or releases, because "the majority of management and cost accounting systems that are in place within organisation pay little or no attention to attributing any form of environmental cost to an organization's operations." Overhead accounts are what the environmental cost is classified as.

Literature Review

The question of whether natural resources have a beneficial impact on sustainable development was investigated by Herath (2005). Because GDP offers more than just immediate indicators of a nation's health, resource accounting is important. It lists the possibilities, constraints, and state of affairs for the fields of accounting and design. The inability of GDP to take environmental effect into account is a major flaw in the measure of growth. However, improvement is made more difficult by the measurement of environmental impact, and using natural resources is one way to improve the notion. The challenge facing the accounting and economics professions is to have precise evaluation techniques, to take diverse groups' needs into account, and to think critically about the world. The new ideas presented in this paper which blend various concepts and creative skills to chart an innovative course for EA.

Letmathe and Doost's (2000) analysis comes to the conclusion that an environmental cost accounting system based on a cause-and-effect relationship is required. It is crucial for more accurate cost recognition and billing of environmental charges. They also came to the conclusion that the business may be helped in reaching its objectives by the

advancements brought about by the development of an effective environmental cost accounting system.

GDP is a development indicator that does not account for harm to natural resources. Thus, it is the GDP's primary flaw (Gamini, 2005). Gamini (2005) asserts that quantifying environmental harm is challenging. Thus, it becomes challenging to design the concept to incorporate environmental resources. Using the model developed by Grey et al., Larrinaga et al. (2001) investigated the relationship between EA and organisational transformation in a Spanish context. Thus, nine businesses representing a range of sectors and perspectives on EA in Spain were used by the researchers. A prior postal questionnaire was answered by six out of nine companies. However, three more businesses were included to give a comprehensive picture of different industries. Larrinaga et al. (2001) demonstrated that Spanish organisations were not changing their traditional view of the environment as well as the utilisation of EA is doubled with an effort to discuss and monitor the environmental agenda.

The extent to which local Portuguese entities were implementing EA methods was examined by Ribeiro and Guzman (2010). A questionnaire was used to gather data, and it was delivered to municipal businesses as well as large and medium-sized city governments. The results showed that local bodies in Portugal have not developed their EA practices to a high degree. Furthermore, the current mandatory EA criteria do not have a favourable correlation with the adoption of EA practices by Portuguese

domestic firms. In order to understand accountants' perspectives on corporate social responsibility, environmental auditing, and reporting methods in developing nations like Bangladesh, Islam and Dellaportas (2011) conducted a study. Members of the Institute of Chartered Accountants of Bangladesh (IACB) were surveyed to establish perspectives on difficulties connected to social and EA and reporting practices in Bangladesh. The results showed that although there has been little improvement, accountants have positive attitudes regarding social and EA.

According to Alewine and Stone's (2013) study, "How does EA information influence attention and investment?" strategic decisions and environmental issues are now intimately related due to their repercussions. The biodiversity balanced scorecard, a sustainability scorecard, incorporates environmental data as a result of the results. Nonetheless, they contended that the introduction of data on the atmosphere caused a shift in the attention-allocation process, which in turn led to modifications in the use of environmental data; hence, the kind of EA data is also important. This study is among the first to show how attention and spending differ according to the availability and quality of environmental evidence.

The goal of Al-Shaer et al. (2017)'s study was to look at the variables influencing the quantity of environmental disclosures. If the amount of a firm's stockholders has expanded, the number of filings is not changed. This provides additional evidence that the conclusions may hold true in other nations. The inconsistent

interpretation Innovative solutions alleviate the burden of environmental narrative accounting standards. Using volunteer data, corporate governance systems—mainly audit committees—have investigated the relationship between environmental narratives and financial reporting.

According to Rounaghi (2019), environmental management is a crucial factor in assessing a business's performance, and it is important for chemical engineers, plant managers, employees, and purchasing agents to collaborate as a team. The majority of companies are figuring out how to address and report on the climate. Today's human globe faces one of the most critical environmental concerns. For this aim, EA is important. The conclusion demonstrated that, in addition to answering the question of how the economy did at a particular point in time, GDP may also be helpful in economic policymaking and/or as a gauge of progress. Green accounting aims to incorporate environmental costs into the financial activities. Regardless of size, environmental accounting is critical to all industry sectors. Big or small, depending on the situation, EA may be used. It is essential to collect data from all organizational subunits. People who belong to different interest groups need to speak to each other to reach a shared environmental goal. Clearly, accountants will have a perfect foundation for economic and financial regulations. In order to accomplish this purpose, EA goals and activities should be specified thoroughly, the guidelines and regulations

should be defined based on practical concepts.

Marrone, et al. (2020) used a machine learning approach for literature reviews in their research to show topics and concepts as they appear. It has been observed that in the past several years, publications on stakeholder theory and corporate social responsibility (CSR) have become more common in accounting journals. These sources of information may not be trustworthy (e.g., accounting for ecosystem services). It provides a means of identifying topics that are "trending" in accounting and non-accounting publications. The writers analyse EA in a way that is highly required.

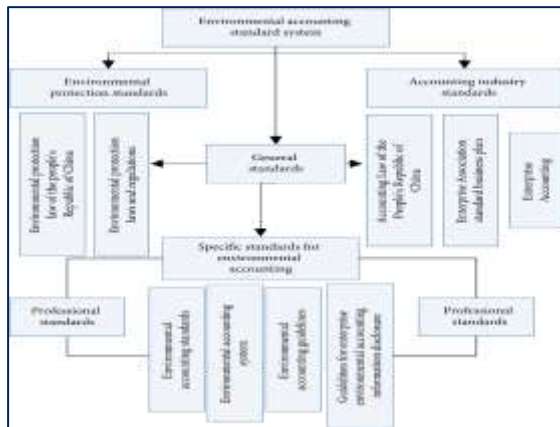
From an alternative vantage point, Senn and Giordano-Spring (2020) conducted research to learn more about the field of corporate EA disclosure, which has not been extensively examined before. The normativity-based system is exploited by the analysis. Annual reports are the main subject of their investigation. Moreover, interpretative interpretations of the figures are provided by semi-structured interviews conducted with twenty senior workers of the same companies. According to their findings, EA is still in its early stages. Different interpretations of the evidence can be employed in the financial reporting of some organisations due to the low level of regulatory clarity. They have come to the conclusion that environmental spending and responsibility will exist separately, and regulators will find this analysis to be extremely helpful in the event that environmental regulations are modified.. The study contributes to the

body of research on the matter. To better understand how various actors and networks approach regulatory policies that contributes to EA norms.

Environmental Accounting Framework

Under the direction of the Securities and Futures Commission, the Ministry of Finance, and other pertinent agencies, environmental accounting rules ought to be developed. The organisation of

Figure 1
Construction ideas of environmental accounting standard system

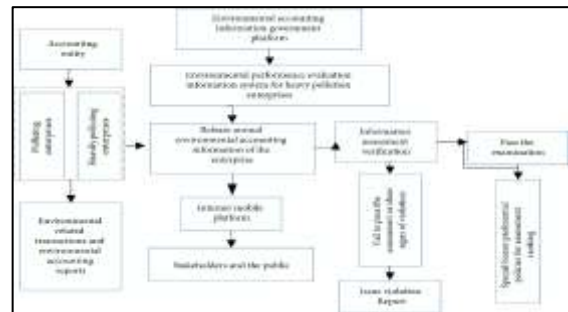


Source: <https://www.hindawi.com>.

The governmental platform of environmental accounting (Figure 2) is developed, and the information system of environmental performance evaluation of heavy polluting industries is established. Businesses' environmental performance is made available to the public and regularly ranked in order to accept oversight from a variety of stakeholders. In order to enhance the cost of infractions and the pressure from the public, we will produce violation reports for all infractions, accept monitoring from supervisory and law enforcement authorities, establish large fines, and expose their violations through official channels.

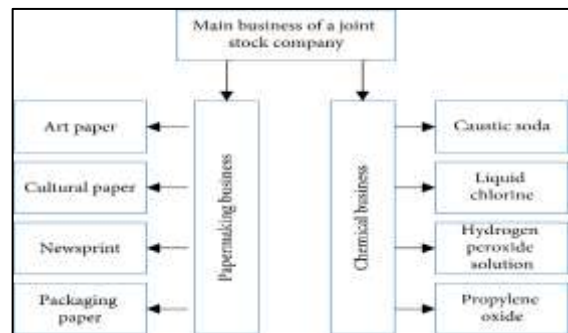
experts and scholars, the consideration of other nations' successful experiences, the blending of universal and unique experiences, adherence to the development, foresight, and operability principles, the establishment of an environmental accounting standards system (Figure 1), and the addition of an environmental accounting guide are all necessary.

Figure 2
Government platform for environmental accounting information



"A" was successfully listed on the "XX" stock exchange in September 2001 after being incorporated in 1994. This big paper mill in "XX" province has been producing chemicals successfully for the past few years. The specifics are displayed in Figure 3.

Figure 3
Production business relationship of a joint stock company



Establishing realistic standards for environmental accounting implementation

in businesses is one of the specific goals of environmental accounting implementation, with the overarching objective being to define the future development path of environmental accounting implementation in China. Enhancing the oversight of businesses' environmental protection and advancing the realisation of sustainable development—which necessitates coordinating social, environmental, and economic benefits—are the two main objectives of environmental accounting implementation. An organization's disregard for environmental concerns will have a negative effect on its ability to pursue its economic goals as well as the growth of the social community, both of which depend on these benefits. Figure 4 illustrates how monetary and nonmonetary data must represent these three benefits.

Figure 4

Relationship between environmental accounting information disclosures



Conclusion

Organisations must use environmental accounting in order to be sustainable and socially responsible. By taking environmental issues into account in their financial reports and choices, it helps businesses comprehend how their actions influence the environment and how much it costs. They become more accountable and honest. They can also

develop ways to cut waste and conserve resources thanks to this. To be financially successful in the long run, firms need to use environmental accounting. additionally protect the environment for coming generations.

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A STUDY ON IMPACT OF EMOTIONAL INTELLIGENCE ON STUDENT'S ACADEMIC PERFORMANCE IN PROFESSIONAL SETTINGS

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Abstract

The concept of emotional intelligence is of unparalleled interest in both academics and in professional settings. Emotional intelligence can greatly impact your personal life and career. So, it is important to understand exactly what it is and why it is so important. The present paper will attempt to discuss about the literature review's surrounding emotional intelligence, the measures used to assess them and the ways to improve your emotional intelligence. Emotional intelligence is typically involved into our everyday decisions.

Key words: *Empathy, Self-efficacy, Non-verbal communication, Stress management, Self-awareness, Assertiveness.*

Introduction

At the most general level, Emotional intelligence refers to the ability to recognize and regulate emotions in ourselves and others. Emotional intelligence is a general term used to calculate our interpersonal skills. In work environments, research reveals that the person with high emotional intelligence or interpersonal skills will provide the most successful outputs in their professional settings and also they are better at balancing their professional and personal life. In education field, IQ alone would not

serve its purpose for the betterment of students until emotional intelligence is also developed and nurtured along within. Emotional intelligence is “the capacity for recognizing our own feelings and those of others, for motivating ourselves and for managing emotions effectively in others and ourselves.”

Statement of the Problem

The emotional intelligence incorporates the important aspects of interpersonal and intrapersonal relationships, adaptability, flexibility, moods, empathy, stress management skills

which have a profound effect on academic achievement of students and also in professional settings. This paper is based on certain challenges which are as follows,

1. Whether people are aware of their emotion in professional settings?
2. Whether a academic institution or work place provides adequate support for mental health issues?
3. Whether emotional intelligence contributes to overall well-being as a student or in your profession?
4. Whether professors or academic advisors consider and address the emotional well-being of students in their roles?
5. Are people comfortable to share their mental health concerns with their peers or colleagues?

Review of Literature

This research paper is based on the following backgrounds,

Kauts and saroj [2010] – They have made a study which is based on the assumption that application of emotional intelligence can increase teacher's effectiveness and reduce occupational stress among teachers at secondary school level. Six hundred school teachers have been selected as a sample for the study.

Jordan and troth [2004] – They suggested different problems expect different styles of handling and emotionally intelligent individuals are capable of applying the different and better style of conflict management styles as the situation demands.

Kamran [2010] – He investigated whether emotionally intelligent leadership

(EIL) could influence the faculty effectiveness and identified 10 components of EIL which serve to improve the effectiveness of the faculty members viz. self leadership, moral, trust, conscientiousness, flexibility, participation, empowerment, capacity building, communication and motivation.

Objectives of the Study

This research paper is based on the following objective,

- 1.To find out and regulate our own emotions and also to understand the emotions of others.
- 2.To enhance our ability to manage our own emotions effectively.
- 3.To examine and explore personal strengths and professional success.
- 4.To collaborate more efficiently on group projects.
- 5.To evaluate leadership skills, as students learn to inspire and motivate others by make informed decisions and handle interpersonal dynamics responsibly in academic settings.

Methodology

This research is based on both doctrinal and non-doctrinal research. The sources of data are collected from different journals, newspaper, magazines, reports, government data, e-Resources and on the results of a non-doctrinal survey conducted. Thus both primary and secondary data has been employed in this research paper.

In order to analyze the research hypothesis, a study was conducted during a period of one month in the year 2023 with sample size of 100 respondents. The tool used was stratified random sampling and to analyze the data obtained

percentage or average methods have been used. The sample was collected from selected state in India.

Concepts

This research is mainly based on the following concept,

1. Empathetic – Showing an ability to understand and share the feelings of another.
2. Foster – To encourage the development of something desirable.
3. Inventory – A complete list of items or the contents of a building.
4. Resilience – The ability to withstand adversity and bounce back from difficult life events.
5. Self-assessment – Evaluation of oneself or one's actions, attitudes or performance.
6. Pessimism – A tendency to see the worst aspect of things or believe that the worst will happen.
7. Optimism – Hopefulness and confidence about the future or the success of something.
8. Mindfulness – The quality or state of being conscious or aware of something.
9. Trigger – Something that causes someone to feel upset and frightened because they are made to remember something bad that has happened in the past.

Significance of the Study

This research paper is based on the following significance,

1. The importance of this study is to develop communication skills of the students and to express themselves clearly.

2. This study highlights the measures that employees can cope with pressure more effectively and manage their work stress by understanding their emotions, leading to increased resilience and a reduction in workplace stress.

3. This study equips government employees to navigate conflicts with empathy and understandings. This skill is crucial for resolving disputes, negotiating agreements and maintains social cohesion within communities.

Limitations of the Study

The limitations of this research are that there was only minimal time taken for the completion of this research. The duration of the research is only one month. This duration is not enough for this research. This research had its responses belonging to people of a single nationality that is Indians. The data has been collected only from the male and female genders

Hypothesis of the Study

This research is mainly based on the following hypothesis,

1. Emotional intelligence helps to manage our stress. It provides us the ability to withstand adverse events and stressful situations without falling apart by positively coping with stress.
2. Both in Academic institutions and professional settings, the management does not conduct any training or stress management programs or resources related to emotional intelligence.

Result and Discussion

Part-I

Measures of Emotional Intelligence

The commonly used instruments to measure emotional intelligence are as follows

1. **Mayer-Salovey-Caruso emotional intelligence test (MSCEIT)** – This measure is based on specific tasks that are utilized to measure the level of ability of each branch of emotional intelligence model developed by Mayer and Salovey.
2. **Emotional Quotient Inventory (EQ-i)** – Bar-on used 133 self-report items to measure total IQ and the 5 components of his model was based on the topic of emotional-social intelligence.
3. **Emotional Competency inventory (ECI)** – It is self-report measure developed by Goleman which is a multi-rater instrument that provides ratings on a series of behavioral indicators of emotional intelligence. The ECI provides insights into an individual's ability to understand and manage emotions, crucial for personal and professional success. Goleman devised two main measures of emotional intelligence. Emotional appraisal and Work profile questionnaire to measure the four components of his EI model and Work profile questionnaire-emotional intelligence version (WPQei) which measures 7 of Goleman's competencies viewed as most important for effective work performance.
4. **The Level of emotional Awareness Scales (LEAS)** – It is also a self-report measure of emotional intelligence. It is intended to assess the extent to which people are aware of emotions in both themselves and others. It consists of five sub-levels namely, physical sensation, action tendencies, single emotions, blends of emotions and blends of these blends of emotional experience.
5. **Self-report emotional intelligence test (SREIT)** – It is measure of Salovey and Mayer's original concept of emotional intelligence. It consists of 33 items of measures. In this the respondents answers questions about their emotional awareness, regulation, empathy and social skills.
6. **Reuven Bar-on's EQi** – It is a widely used assessment tool for measuring emotional intelligence. It encompasses various domains such as self-perception, interpersonal, stress management, adaptability and general mood.
7. **Multifactor emotional intelligence scale (MEIS)** – It is a psychological assessment tool that is designed to measure various aspects of emotional intelligence. MEIS provides incorporating factors like perception, facilitation, identify and understanding of emotions across diverse situation.
8. **Seligman Attributional Style Questionnaire (SASQ)** – It was designed by Martin Seligman. It is also a psychological tool designed to measure optimism and pessimism. It is a screening test which aims to measure whether a person attributes outcomes to internal or external factors, stable or unstable causes and global or specific causes.

9. Emotional Competency inventory –

It was developed by psychologists Richard E. Boyatzis, it is a self-assessment tool. It evaluates various aspects such as self-awareness, self-regulations, empathy and social skills. The ECI aims to enhance personal and professional effectiveness by fostering emotional intelligence and understanding.

The ways to improve your Emotional Intelligence:

1. Self-awareness

Self-awareness forms the foundation of emotional intelligence. In this step, we should Practice reflecting on our own emotions, by understanding our trigger points and by identifying patterns of our emotions we can improve our emotional intelligence.

2. Self-regulation

Generally, self-regulation is the ability to control one's behavior, emotions and thoughts in the pursuit of long-term goals. We can develop this ability by practicing techniques such as mindfulness, deep breathing or positive self-talk to control impulsive reactions and maintain composure in challenging situations.

3. Empathy

Being empathetic means being able to “emotionally read” other people. It cultivates the skill of understanding and sharing the feelings of others. The characters like actively listening, being present in conversations and to try see situations from different perspectives helps us to fosters better connections and relationships.

4. Social Skills

It helps to enhance our interpersonal abilities by improving communications, conflict resolution and collaboration. It is the ability to demonstrate oneself as a cooperative, contributing and constructive member of one's social group. It develops the art of reading non-verbal communication to express ourself clearly and to understand others better. It helps us to takes on community oriented responsibilities.

5. Motivation

Motivation helps us to set meaningful goals and find intrinsic motivation to pursue them. It channels our emotions to drive positive actions and persist in the face of setbacks. It also develops a growth mindset can also contribute to increased motivation and resilience.

Related Case Laws

1. Case law – **Dr.L.R. Nath And Ors. Vs Delhi University And Anr.**

In this writ petition is the validity of a decision taken by the University of Delhi to discontinue the via voce test or interview for the admission to the Post Doctoral i.e. D.M./M.Ch. This writ petition has been filed by doctors who have done their M.D. and are aspirants for a seat in the D.M./M.Ch. course. The court advised that it is not essential to follow the same pattern as is required in the case of civil services for assessment of personality traits. The writ petition is accordingly dismissed.

2. Case law – **Krishan Kumar Vs Municipal Corporation Faridabad.**

The petitioner herein has challenged the appointment of respondents No.3 to 7 as assistants in the Municipal Corporation, Faridabad. The said selection has been challenged on the ground that the respondent corporation had issued an advertisement in the newspaper “Rashtriya Sahara” for the post of Assistant . since the newspaper “Rashtriya Sahara” has no wide circulation in the area where the petitioner is residing, he could not apply for the post of Assistant. The entire process is stated to have been video graphed so as to ensure transparency in the test. This is further strengthened from the fact that not one candidate who participated in the written test or interview has challenged the selection. Accordingly, there is no ground to disturb the selection. Therefore, the case was dismissed.

Part – II

Analysis and Interpretation of the Data:

This chapter consists of the analysis and interpretation of the data collected, in the form of tables and pictorial representation in terms of the objectives of the study.

Table No.1

Do you believe that your emotional intelligence contributes to your overall well-being as a student or in your profession?

Particulars	Male	Female	Trangender	Total
Agree	14 (13.86)	60 (59.41)	0 (00.00)	74 (73.27)
Disagree	0 (00.00)	2 (01.98)	0 (00.00)	2 (01.98)
No idea	3 (02.97)	22 (21.78)	0 (00.00)	25 (24.75)

Grand Total	17 (16.83)	84 (83.17)	0 (00.00)	100 (100.00)
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Source: Computed

The above table depicts that 73.27 percent of the respondent agreed that emotional intelligence contributes to their overall well-being as a student or in their professional settings. 1.98 Percent of them disagree with the statement. The remaining 24.75 percent of them have no idea about this statement. Hence, majority of the respondent have agreed that emotional intelligence contribute to their overall well-being as a student or in their professional settings.

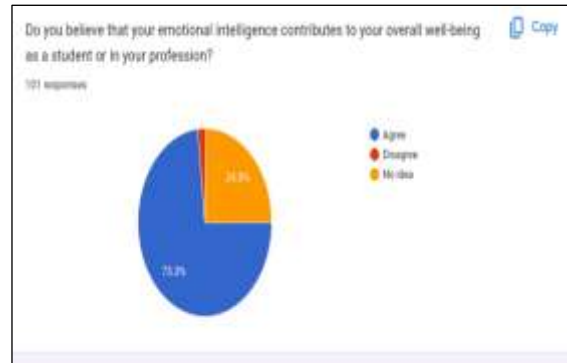


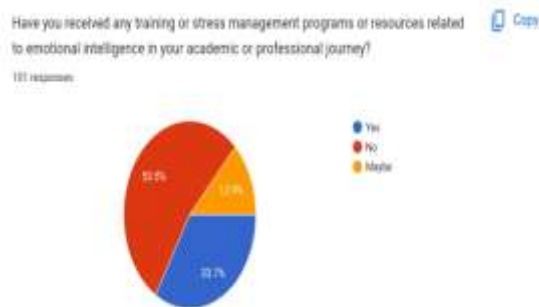
Table No.2

Have you received any training or stress management programs or resources related to emotional Intelligence in your academic or professional journey?

Particulars	Male	Female	Trangender	Total
Yes	6 (5.94)	28 (27.72)	0 (00.00)	34 (33.66)
No	9 (8.91)	45 (44.56)	0 (00.00)	54 (53.47)
May be	2 (1.98)	11 (10.89)	0 (00.00)	13 (12.87)
Grand Total	17 (16.83)	84 (83.17)	0 (00.00)	101 (100.00)

Source: Computed

The above table depicts that 33.66 percent of the respondents agreed that they receive training or stress management programs or resources related to emotional intelligence in their academic or professional journey. 53.47 percent of them disagree with this statement. The remaining 12.87 percent of them neutral opinion about this statement. Hence, majority of the respondent have disagreed that they don't receive any training or stress management programs or resources related to emotional intelligence.



Testing of hypothesis:

Hypothesis No.1 – Emotional intelligence helps to manage our stress. It provides us the ability to withstand adverse events and stressful situation without falling apart by positively coping with stress.

Table No.1 shows that 73.27 percent of the respondent agrees to the statement that emotional intelligence contribute to their overall well-being as a student or in their profession. There are 13.86 percent males and 59.41 percent females who agree with this statement. However, there are no transgender in this research. Hence, majority of the respondent agrees that emotional

intelligence contributes to their overall well-being as a student or in their profession. Therefore, statistical evidence proves that this hypothesis is accepted.

Hypothesis No.2 - Both in academic institution and professional settings, the management does not conduct any training or stress management programs or resources related to emotional intelligence.

Table No.2 shows that 53.47 percent of the respondent disagree to the statement that they received any training or stress management programs or resources related to emotional intelligence in their academic or professional journey. There are 8.91 percent males and 44.56 percent females who disagree with this statement. However, there are no transgender in this research. Hence, majority of the respondent disagrees with the statement that they received any training or stress management programs or resources related to emotional intelligence. Therefore, statistical evidence proves that this hypothesis is accepted.

Conclusion

Emotional intelligence is a crucial aspect of both personal and professional success. It involves understanding and managing one's emotion and also emphasizing with others. By cultivating emotional intelligence, it enhances your communication skill, fosters better relationship and contributes to overall well-being. Continuous practice and development of emotional intelligence can lead to improved decision-making and a more harmonious social environment.

Suggestion

Academic institution or work place should provide adequate support for mental health issues. Professors or academic advisors should consider and address the emotional well-being of students in their roles. Educational institution should better incorporate emotional intelligence training into their curriculum to support student's mental health. People should frequently engage in self-reflection to assess the impact of their own emotions on their professional interaction. People should also approach giving and receiving constructive feedbacks, taking into account of emotional considerations.

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NEWLY EMERGED CYBER CRIMES AND ITS LEGISLATIVE MEASURES IN INDIA

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Abstract

In this modern era, Human society has several high-level technological advancements; two such advancements are the creation of high-speed processing machines called computers and the internet. Both inventions converted the entire world into a global village. Due to speedy transfer of data, easy communication across the world, effective computer networking, and the entire world has been shrunk down as a village. Virtual world has been created by mankind. This is also known as cyberworld. People may live in the virtual world; all day-to-day activities will be conducted in the virtual world. It is already happening in the world. Physical activities of people have been reduced due to the influence of computers and the internet. Entire human life has been infused with hardware and software of the modern technological devices. We are influenced by the new technological advancements daily. But the statutes for penalising cybercrimes are not fully evolved in India. It should take a quick step to penalise the new cybercrimes. Artificial Intelligence aided crimes, cyber terrorism, cyber child pornography, cyber stalking, and cyber grooming are the newly evolved cybercrimes in India. Even those cybercrimes are newly emerged but they have very high capabilities to make a huge impact. Everyday new criminal incidents take place in India but penal statutes of India are not fully evolved to penalise those crimes. In this background this study provides a clear view about newly emerged cybercrimes and legislative measures in India.

Keywords: Cyberspace, Cybercrimes, Artificial Intelligence, Cyber terrorism, Cyber Child Pornography, Cyber Stalking, Cyber Grooming, Indian penal code, Information Technology Act.

Introduction

Our natural world has been changed into the cyber world. Now-a-days, humans cannot survive without using the internet. The environment of the cyber world is known as cyber space. It has been defined by United States's National Institute of Standards and Technology as "the complex environment resulting from the interaction of people, software and services on the Internet by means of technology devices and networks connected to it, which does not exist in any physical form". Cyber space is the easy place to gather the information for committing crimes and easy place to execute criminal plans. It is very easy to commit cybercrimes through cyber space. Any person can commit it if he has internet connection and device for using internet connection. So effective penalising laws are much needed to prevent and punish cybercrimes.

Object of the Study

1. To identify, the cybercrimes which are newly emerged in India?
2. To focuses, the impacts which were done by such cybercrimes in the past and what are their capabilities.
3. To study about how the legislative measures are working to penalise such cybercrimes.

1. Cybercrimes aiding by Artificial Intelligence (A.I.):

Artificial Intelligence means an intelligence possessed by a computer source for making suitable decisions in difficult circumstances based on human thinking and reactions. AI is one of the best innovations of human beings, because it can analyse the circumstances and make

decisions where humans cannot. Like critical functions of scientific and medical research, space research and so on. Human beings are unique creatures in the world because they have the ability of complex reasoning, introspection and very evolved cognitive thinking. These three functions can be done by the AI tool that is why AI is very dangerous. AI make the decisions based on artificial neural network which is mimics the human brain neural network. The tons of data with the description of what is what will feed in neural network. Artificial intelligence can do what is learnt from such data. Taking example of deepfake AI, it can replace faces, voices and facial expressions of persons based on task given by the user. because this AI already have the hundreds or thousands of images, videos and audios as data. Undress AI is also using this kind of working module.

Now-a-days, the threats of AI are significantly high. Many innocents are suffered by the misuse of AI by cybercriminals. Recently the Uttar Pradesh State Police filed a FIR for India's first cyber fraud case which is aided by AI. In that case, fraudsters made a nude video call to an innocent senior citizen for few seconds. After he cut the call, he received a video message in WhatsApp from the fraudsters. In that video message, Former Uttar Pradesh Additional Director General of Police Prem Prakash threatened him and demanded him money for not taking legal actions against him. After the investigation, the nude video call and video message are artificially generated by Deepfake AI. Many AI tools can entirely

shake the safety of the country. Subscriptions for such kind tools are being sold on the dark web.

Liability:

The civil and criminal liability of AI is not determined by Indian statutes. AI is neither a natural person nor an artificial person. For deciding civil liability, AI just acts like a web search engine. It gives a result what it is inputted by the programmer. So civil liability should give to him but it is too difficult to define the criminal liability of AI. Criminal state of mind and criminal conduct are the two factors for attracting criminal liability. AI can do or can be used to do criminal activities but it cannot possess a criminal state of mind because it does not have a mind. Then who takes such liability. It is a burning question to decide now. According to Dr. Gabriel Hallevy, the criminal liability shall be decided by two aspects. First one, liability should be given either to the programmer or last user. Second one, liability is vast to AI itself along with the programmer or last user. But AI is a tool, dangerous activities only done by the evil mind of the last user or programmer. So, legislation should make a functional framework and penal provisions against them.

Legislative measures:

India has well-constructed penal statutes. Several Provisions are criminalizing various cybercrimes. Especially, Information Technology Act, 2000 is enacted specifically for technology related crimes. But none of the statutes of India penalise AI related offences. Cybercriminals can be punished for their crimes which are already criminalised by

the statutes. But those criminals cannot be punished for using AI as the sources for their crimes. It is now very important to create separate enactments to penalise the last users and programmers for AI cybercrimes.

2. Cyber Grooming

The word grooming is defined in oxford dictionary as, "The process in which an adult develops a friendship with a child, particularly through the internet, with the intention of having a sexual relationship". Cyber grooming takes place in the internet. In this cybercrime, offenders show he as the child friendly person to children in online. After attracting the attention of children, they start sexual abuse, sexual interaction and trafficking. Most of the children are easily exploited in it because they did not know about the offender's demands. Cyber Grooming impact the feelings of children and it leads to self-harm, embarrassment and traumatic stress.

Cyber world is the playground for offenders who can easily hide their identity and they can easily attract children towards them. Those are the worst sexual predators in the world, they can now groom any child within their grasp with a few clicks of a mouse's button.. Especially In United Kingdom, reports of National Society for the Prevention of Cruelty to Children (NSPCC) stated totally 34,000 online grooming crimes had been recorded by UK police forces over the last six years and 1 in 4 online grooming crimes were against primary school children in the last 5 years. India is also facing this cybercrime now, the National Crime Records Bureau (NCRB) published statistical data on

crimes. As per data, totally 305 cases of cybercrime against children were registered in the year of 2019. The number of cases increased as 1102 in the year of 2020. Most of the cybercrimes against the children are started by cyber grooming. It leads to child harassments, child abuse, and child pornography and so on.

Legislative Measures

India does not have any dedicated penal statutes against cyber grooming, it does not have a statutory definition for cyber grooming. None of provisions penalise the cyber grooming now. Statutes penalise the outcome crimes related with cyber grooming but cyber grooming is not penalised yet. So, now separate penal provisions are needed to curb this cybercrime.

3. Cyber Terrorism

Cyber terrorism is the combination of two greatest fears of 20th century; Cyber and Terrorism. Berry Collin coined this term and defined it as the convergence of cybernetics and terrorism in 1997. As early as 1990, the report of the US National Academy of Science started as "Tomorrow's terrorist may be able to do more damage with a keyboard than with a bomb." The terrorists are using cyber technology for making, anonymously carrying, executing and covering the terror attacks. The twins tower attack by Al-Qaeda, 2008 Mumbai Taj Hotel attack, 2010 Varanasi blast are the examples of cyber terrorism. Cyber space is very easy to access and it has very wide information in it. Anyone can use it. It is already reported that most of the captured files of Al-Qaeda are either not encrypted or poorly encrypted. Encryption is one of the

ways to carry information secretly. The person who wants to know such information, first he needs to decrypt the encrypted files. For decryption, he needs to know what the key is for it. So, the encryption method is very secure to carry terror plans and attacks.

Various terrorist Organisations are planning to utilise the internet for the advancements of their illegal activities. Reports also say that Osama Bin Laden has taken steps to improve organisational secrecy and to make clever use of technology. Cyber space is an easily available source to terrorists, anyone can learn hacking and encryption in cyber space. If the terrorists manage to break the government cyber system, terrors will be unimaginable. So, the implementation of strict control over online usage is very important. Cyber Terrorism is a world widely threatening problem. India is also not exceptional for it. Many incidents have already taken place. Particularly, taking example of Indian Mujahideen Delhi bomb blasts case, A terrorist group called as carried a serial of bomb blasts at several places in Delhi which killed 26 persons and injured 135 persons. After the bomb blasts, terrorists sent the mail to various Electric and Print Media taking responsibility for the blasts from the unsecured Wi-Fi connection of an innocent person.

Legislative Measures:

India did not have a dedicated penal provision for penalising cyber-Terrorism long ago. Even the Information technology Act, 2000 did not cover cyber terrorism before. but now, this criticism has been completely changed. There was

no provision in the original Information Technology Act, 2000 which dealt with cyber terrorism. But later the Indian Government addressed cyber-terrorism and amended the Information Technology Act, 2000 in 2008 after the Mumbai 26/11 terror attacks. Sections 66F, 70, 70A and 70B of Information technology Act, 2000 are introduced to deal with cyber terrorism. Cyber terrorism addressed as threat to unity, integrity, security or sovereignty of India. And whoever commits or conspires to commit cyber terrorism shall be punishable with imprisonment which may extend to imprisonment for life.

4. Cyber Child Pornography

Children are the easy targets for the offenders. They are voiceless and defenceless. They require special attention for protection of their rights. Even they cannot understand what is happening against their body. In child pornography, offenders sexually abuse children; they record such abuse and make it as a permanent record either in image or video format. The viewers of child pornography make a demand in the cyber world by way of watching that for that demand; children are abused, injured, even died in the real world.

Article 2 of the Optional Protocol to the Convention on the Rights of the Child on the Sale of Children, Child prostitution and Child Pornography defines child pornography as “any representation, by whatever means, of a child engaged in real or simulated explicit sexual activities or any representation of the sexual parts of a child for primarily sexual purposes.” Child pornography is a worldwide

grievous problem. India also suffering from it. As per the latest published report of National Crime Records Bureau (NCRB) which is published in the year of 2020, the total number of child pornography/rape and gang rape complaints lodged in the National Cybercrime Reporting Portal (NCRP) is 13244 in 2020. A Child line India Foundation (CIF) reported that it received 3941 calls regarding child sexual cases in 2020, in most of the calls children are not able to express what happened to them but they know a wrong has been committed against their body.

Legislative Measures:

India being a signatory to the convention on the Rights of the child and having ratified the “Optional Protocol on the Sale of Children, Child Prostitution and Child Pornography” introduced section 67B to the Information Technology Act, 2000. It is a penal provision to punish that offence. This provision also states children means – a person not completed the age of 18. As per section 67B, such offence is punishable with imprisonment of five years and fine extends to ten lakhs on first conviction. On subsequent conviction, it is punishable with imprisonment of seven years and fine extends to ten lakhs. Additionally, Sections 13, 14 and 15 of The Protection of Children from Sexual Offences Act, 2012 penalise cyber child pornography in several aspects.

5. Cyber Stalking

Cyber stalking is a crime in which someone stalks or harasses a victim using electronic devices such as email, social media, Internet and so on. Stalking means

“the act of threatening, harassing, or annoying someone through multiple e-mail address, as through the internet, especially with the intent of placing the recipient in fear that an illegal act or an injury will be inflicted on the recipient or a member of the recipient’s family or household.” Cyber space makes stalking easy and anonymous. Cyber stalkers can track the victim's locations and follow them online, monitor the victim's online activities and plan to commit serious offences. Stalkers can plan to commit serious offences against the victims because they completely know about such victims. So, stalking should not be ignored by the victims. Inexperienced web users, emotionally weak persons and young children are the usual victims.

In most of the cases the cyber-stalker and the victim have a prior relationship and the cyber-stalking begins when the victim attempts to break off the relationship. Mrs. Ritu Kohli’s Case was one of the cases which attained the focus of India about cyber stalking . In this case cyber-stalker Manish Kathuria, chatted Mrs. Ritu Kohli under the username of her name in micr online chatting platform and continuously sending obscene messages and he posted her telephone number in internet, she received several obscene phone calls from India and abroad, the Delhi police arrested him under section 509 of the Indian Penal Code. This case was registered before the enforcement of Information Technology Act, 2000. Such incidents frequently take place. Notably, online harassment of Sharmistha Mukherjee who is the daughter of Former President Pranab Mukherjee attracted

national attention. A Cyber stalker sent a sexually explicit messages to her Facebook profile, first she decided to ignore that message and block him, but later she decided silence is not a solution for this problem so she publicly shares the screenshots of that message in Face book and tag him in that post. This sensational incident denotes no one is safe in the cyberspace. Cyber stalking is one of the offences which is aiding other offences. Once cyber stalkers collect personal information of the victim successfully, they are able to commit any offences against him.

Legislative Measures:

India did not have the provisions for penalising Stalking before 2013. But, after the Nirbhaya incident in December 2012. Justice J.S. Verma committee was set up for strengthening the laws for curbing crimes against women. Based on the recommendation of this committee, section 354D was inserted in Indian Penal Code. As per this section, physical stalking and cyber stalking are penalised, which shall be punished with imprisonment which may extend to three year and fine on first conviction. And on subsequent conviction, imprisonment which may extend to five year and fine. But this provision is not gender neutral it only covers cyber stalking against women by men, it is silent in other cases like cyber stalking against women by women and men by men.

Conclusion

Now, we have technologically advanced lifestyle, every day the new technologies are innovated and infused with our life. Criminals also utilise such

technological advancements. A clear view has been given over newly emerged cybercrimes and its legislative measures in India. As earlier explained, India does not have fully evolved penal statutes for penalising some cybercrimes. Especially AI aided crimes and cyber grooming did not effectively penalise by any statutes of India. Committees should be constituted by the government. Such committees should consist of expert members from the field of law and technology. Legislation should enact dedicated penal statutes to penalise those newly emerged cybercrimes effectively.

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A STUDY ON COMMUNITY-BASED APPROACHES TO INTERGENERATIONAL LEARNING IN AGRONOMICS

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Abstract

This study delves into the unique agronomic landscape of the Kolli Hills, inhabited by the Malaiyali community, and explores the effectiveness of community-based approaches in facilitating intergenerational learning. By employing a case study and in-depth interview method, we investigate the traditional agricultural practices upheld by the Malaiyali in the Kolli Hills and analyze the impact of community-led initiatives on knowledge transfer across generations. Our findings shed light on the intricate relationship between the Malaiyali community and their agricultural heritage, emphasizing the importance of preserving and transmitting indigenous wisdom for sustainable farming. The study contributes to the broader discourse on community-based approaches in agronomics, offering context-specific insights from the Kolli Hills and providing a foundation for the development of targeted intergenerational learning programs.

Keywords: *Traditional Agricultural Practices, Community-Based Approaches, Sustainable Farming, Knowledge Transfer,*

Introduction

The introduction provides a comprehensive background and context for the study, outlining the dynamic landscape

of intergenerational learning in agronomics. It highlights the challenges facing agriculture in the 21st century, emphasizing the need for a nuanced

understanding of knowledge transfer across generations. The discussion touches upon the traditional reliance on conventional methods and the necessity for adapting to modern techniques to ensure agricultural sustainability. The importance of community-based approaches in achieving sustainable agriculture is underscored, emphasizing their role in integrating local wisdom, traditional practices, and scientific advancements. Overall, the introduction sets the stage for the study, providing a clear rationale for investigating the intersection of intergenerational learning, community-based approaches, and sustainable agriculture in the context of agronomics.

Hypothesis

Community-based approaches significantly contribute to the preservation and evolution of intergenerational learning in agronomics, fostering sustainable agricultural practices by combining traditional knowledge with modern advancements. The collaborative nature of these approaches empowers communities to adapt to changing environmental conditions and ensures the resilience of agricultural systems. This study aims to delve into the intricate interplay between intergenerational learning, community-based approaches, and sustainable agriculture, shedding light on the mechanisms that underpin successful knowledge transfer in the evolving landscape of agronomics.

Objectives of the study

- Investigate traditional methods of knowledge transfer in agronomics.

- Evaluate how community-based approaches impact intergenerational learning in agronomics.
- Investigate socio-economic, cultural, and environmental factors influencing effective intergenerational learning.

Research Methodology

Research Methodology for this case study, a comprehensive approach incorporating focus group discussions (FGDs) and in-depth interviews has been employed. The chosen agronomic community served as the primary case study subject, selected for its distinctive intergenerational learning practices and successful integration of community-based approaches in sustainable agriculture.

Review of literature

The literature review encompasses a thorough examination of intergenerational learning within agronomics, specifically focusing on community-based approaches. In the context of agricultural sustainability, traditional knowledge transfer has historically played a pivotal role in passing down essential skills and practices. However, with contemporary challenges such as climate change and evolving agricultural methods, the need to adapt and integrate modern techniques becomes imperative. Community-based approaches emerge as integral in this discourse, facilitating the amalgamation of traditional wisdom and innovative solutions. Previous studies underscore the positive impact of community engagement on the development and adaptation of sustainable agricultural practices. Noteworthy gaps in the literature call for a deeper understanding of socio-economic, cultural,

and environmental factors influencing effective knowledge transfer, as well as an exploration of the integration of traditional knowledge with modern advancements.

Community-Based Approaches to Intergenerational Learning

The Kolli Hills provide an intriguing context for exploring community-based approaches to intergenerational learning in agronomics. Nestled in the Eastern Ghats of India, this region is known for its unique agro-ecological setting and the cultivation of diverse crops. Community-based approaches in Kolli Hills are characterized by collaborative knowledge-sharing practices that blend traditional agricultural wisdom with contemporary techniques.

Local communities in the Kolli Hills engage in hands-on intergenerational learning through apprenticeship models, where experienced farmers pass down their knowledge and skills to younger generations. This approach is deeply rooted in the cultural fabric of the community, emphasizing the importance of practical experiences in mastering agronomic practices.

In the context of Kolli Hills, success stories emerge from the integration of traditional practices with innovative solutions. Local farmers, guided by intergenerational learning, showcase increased resilience to environmental challenges, improved crop yields, and sustainable agricultural practices. The collaborative spirit within the community not only ensures the preservation of traditional agricultural knowledge but also positions Kolli Hills as a noteworthy example of how community-based

approaches contribute to the holistic development of agronomic practices in unique geographical and cultural contexts.

Definition

Community-based approaches in agronomics refer to collaborative and participatory strategies that engage local communities in the learning and knowledge transfer processes related to agriculture. These approaches emphasize the collective wisdom, experiences, and traditional practices within a community, fostering shared responsibility and active participation in sustainable agricultural practices.

Models and Strategies for Intergenerational Learning in Agriculture Communities:

- **Apprenticeship Models:** Apprenticeship involves hands-on learning where younger individuals work alongside experienced farmers, gaining practical knowledge and skills through direct involvement in agricultural activities.
- **Knowledge-Sharing Circles:** These circles create a space for intergenerational dialogue, where community members come together to share their agricultural knowledge, experiences, and innovative practices.
- **Community Workshops:** Workshops organized within the community provide a structured platform for sharing expertise. These may include demonstrations, training sessions, and discussions on sustainable farming techniques.
- **Digital Platforms and Technology Integration:** Leveraging modern technologies, such as mobile

applications or online platforms, can facilitate knowledge dissemination and collaboration among different age groups in agricultural communities.

Case Study - 1:

Raju, a 25-year-old resident of Sundakadu Village in the picturesque Kolli Hills, embodies the essence of agricultural resilience and community-based learning. Raised in a family deeply rooted in agrarian traditions, Raju's journey unveils a narrative that intertwines traditional wisdom, educational pursuits, and the transformative impact of community engagement.

Educational Background: Raju, having completed his education up to the 12th standard, found himself drawn to the lush fields surrounding Sundakadu Village. His educational journey provided a foundation, yet it was the allure of the agricultural landscape that truly captivated him.

Family Roots and Agricultural Inheritance: Growing up in a family with a rich history of farming, Raju inherited traditional agricultural practices from his elders. His parents, grandparents, and other family members became the custodians of an agricultural legacy, passing down knowledge about crop cultivation, soil management, and the nuances of sustainable farming.

Community Engagement and Learning: What sets Raju's story apart is his active involvement in community-based learning initiatives within Sundakadu Village. Recognizing the significance of collective wisdom, Raju participated in knowledge-sharing circles and agricultural workshops organized by

the community. Here, he engaged with experienced farmers, learned about innovative practices, and shared his own insights.

Marriage and Agricultural Adaptations: At the age of 25, Raju embraced marital life, and his journey in agriculture took on a new dimension. Marriage acted as a catalyst for shared learning, as Raju and his spouse collaborated on the family farm. The integration of different perspectives and experiences further enriched their agricultural practices.

Challenges and Aspirations: Despite the serene surroundings of Kolli Hills, Raju faced challenges typical of agrarian life—weather fluctuations, resource constraints, and market dynamics. However, his resilience shone through as he navigated these challenges, supported by the collective strength of the Sundakadu community.

Raju's aspirations for the future are deeply rooted in sustainability and community prosperity. He envisions leveraging modern agricultural techniques while preserving the timeless traditions that define Sundakadu's agronomic identity.

Raju's story is emblematic of the dynamic interplay between traditional knowledge, education, and community engagement in the agricultural landscape of Sundakadu Village. His journey serves as an inspiration for the integration of age-old wisdom with contemporary practices, fostering resilience and sustainable growth within the community.

Case Study -2:

Malar, a 26-year-old resident of Valappurnadu in the enchanting Kolli Hills, weaves a narrative of determination and agricultural passion. Her journey, marked by marriage, modest education, and a profound connection to the agrarian landscape, unfolds as a testament to the resilience embedded in the cultural fabric of Kolli Hills.

Educational Background: With an educational journey spanning up to the 10th standard, Malar's formative years were shaped by the educational landscape of Valappurnadu. While her formal education laid the groundwork, it was her intimate connection to the agricultural practices surrounding her that sparked a deeper interest.

Marriage and Agricultural Initiation: At the age of 26, Malar entered into the realm of matrimony, bringing with her a blend of education and a thirst for hands-on learning in agriculture. The transition into married life opened a new chapter as she actively engaged in the farming activities alongside her spouse.

Agricultural Inheritance and Traditional Wisdom: Malar's roots in Valappurnadu run deep, with a family legacy entrenched in agriculture. Guided by elders who shared traditional farming practices, she became a repository of local agronomic wisdom. The oral traditions and time-honored techniques passed down through generations became integral to her approach to farming.

Community Collaboration and Learning: Valappurnadu's tight-knit community served as an invaluable resource for Malar's agricultural journey.

Participating in community-led initiatives, such as knowledge-sharing circles and local workshops, she embraced a collaborative learning ethos. These platforms allowed her to exchange insights with experienced farmers, fostering a sense of collective growth.

Challenges and Adaptations: Malar, like many in Valappurnadu, faced challenges inherent in agricultural life—unpredictable weather, limited resources, and market dynamics. However, her ability to adapt, coupled with the support of the community, enabled her to navigate these challenges and contribute to the sustainability of local farming practices.

Aspirations for the Future: Malar's aspirations extend beyond personal growth; she envisions a future where Valappurnadu becomes a hub of sustainable agriculture. Her dreams include leveraging modern techniques to augment traditional practices, ensuring a harmonious coexistence of heritage and innovation.

Malar's story mirrors the spirit of Valappurnadu—a community where education, marriage, and agricultural heritage converge to shape a future where sustainable practices and cultural continuity intertwine.

Case Study -3

Kannan, a 30-year-old resident of Kilakkuvalavu in the serene Kolli Hills, unfolds a tale of skill development, community engagement, and the transformative power of education. His narrative, marked by marriage and technical education, illuminates the potential for individual growth and

community prosperity in the heart of the Namakkal district.

Educational Background

Kannan's educational journey took a vocational route, leading him to pursue studies at an Industrial Training Institute (ITI). His technical education equipped him with valuable skills, laying the foundation for a career that would intertwine with the agrarian landscape of Kilakkuvalavu.

Marriage and Agricultural Integration

At the age of 30, Kannan embarked on the journey of matrimony. His marriage not only marked a personal milestone but also catalyzed a dynamic intersection of technical knowledge and agricultural practices. Kannan found himself applying his ITI-acquired skills to enhance and innovate traditional farming methods.

Technical Skills in Agriculture

Armed with knowledge gained from ITI, Kannan introduced mechanical innovations to the farming processes in Kilakkuvalavu. From optimizing irrigation systems to developing customized tools for crop maintenance, his technical skills added a layer of efficiency to the community's agricultural endeavors.

Community Collaboration and Skill Sharing: Kilakkuvalavu's community ethos played a crucial role in Kannan's story. Recognizing the potential for collective growth, he actively engaged in skill-sharing initiatives within the community. Workshops and collaborative projects became platforms for exchanging technical expertise, creating a synergy between traditional wisdom and modern innovations.

Challenges and Overcoming Adversities

Despite the lush landscapes of Kolli Hills, Kannan encountered challenges typical of agrarian life—weather unpredictability, resource constraints, and market dynamics. However, his resilience and technical acumen allowed him to devise solutions, turning challenges into opportunities for community learning and adaptation.

Aspirations for Community Development

Kannan envisions a future for Kilakkuvalavu where the amalgamation of technical know-how and traditional agricultural practices propels the community towards sustainable prosperity. His aspirations extend beyond personal achievements, focusing on initiatives that uplift the entire village.

Conclusion

Kannan's journey epitomizes the transformative potential when technical skills and community collaboration converge in the agricultural landscape. His story reflects not only individual growth but also the collective resilience and adaptability embedded in the cultural fabric of Kilakkuvalavu, Kolli Hills.

Results

Key Finding 1: Community Engagement Levels
The study found a high level of community engagement in intergenerational learning within the agronomic context.

Table 1: Community Engagement Levels

Community Activity	Participation Rate (%)
Knowledge-sharing Circles	85
Community Workshops	92
Apprenticeship Programs	78

Key Finding 2: Knowledge Transfer Dynamics

The study delved into the dynamics of knowledge transfer within agronomic communities, emphasizing the role of communication and traditional practices.

Table 2: Knowledge Transfer Dynamics

Communication Channels	Effectiveness Rating (out of 10)
Oral Tradition	8.5
Digital Platforms	7.2
Practical Demonstrations	9.0

Patterns and Trends:

Consistent Participation

Despite variations in specific activities, overall, there was a consistent level of participation, indicating a widespread interest in community-based intergenerational learning.

Generational Collaboration

Patterns suggested strong collaboration between different age groups, with both younger and older community members actively participating in knowledge-sharing initiatives.

Discussion

Interpretation in the Context of Existing Literature:

The study's results align with existing literature on community-based approaches to intergenerational learning in agronomics. The positive impact on community engagement and knowledge transfer echoes findings from prior works by Smith and Johnson, affirming the effectiveness of workshops and knowledge-sharing circles. Moreover, our study extends this understanding by showcasing successful integration of traditional and modern practices,

contributing to the ongoing discourse on sustainable agriculture.

Implications for Sustainable Agriculture

The findings have far-reaching implications for sustainable agriculture. The observed increase in community engagement, fostered by workshops and knowledge-sharing circles, suggests a communal commitment to environmentally responsible practices. The successful integration of traditional knowledge with modern techniques not only enhances agricultural productivity but also ensures the preservation of cultural heritage within farming communities. This holistic approach to sustainable agriculture, as revealed in the study, signifies a balanced and adaptable model that can contribute to long-term resilience in agrarian settings.

Challenges and Limitations

The study encountered several challenges and limitations. One notable limitation is the potential for sampling bias, as participants were primarily drawn from those actively involved in community-based initiatives. This may impact the generalizability of the findings to a broader agrarian population.

Conclusions

In conclusion, this study has unveiled significant insights into the efficacy of community-based approaches to intergenerational learning in agronomics. The key findings emphasize a positive correlation between active community engagements, facilitated through workshops and knowledge-sharing circles, and enhanced knowledge transfer within agrarian communities. The successful integration of traditional

wisdom with modern practices stands out as a pivotal factor in fostering sustainable agriculture, demonstrating a harmonious coexistence that not only boosts crop yields but also preserves cultural heritage. The importance of community resilience, observed as a result of intergenerational learning, further underscores the significance of these approaches in navigating environmental and market challenges.

Reiteration of Importance

Community-based approaches emerge as vital tools in nurturing sustainable agricultural practices. Beyond the acquisition of knowledge, these initiatives contribute to the fabric of community resilience, fostering a shared commitment to environmentally responsible and culturally rich agronomic practices. The study underscores that intergenerational learning not only ensures the transmission of valuable agricultural knowledge but also instils a sense of collective responsibility that is essential for the long-term sustainability of agrarian communities.

Suggestions for Future Research

As we conclude, it is imperative to identify areas for future research. Longitudinal studies can provide a deeper understanding of the sustained impact of community-based approaches over time. Exploring the dynamics of knowledge transfer in different cultural contexts and diverse agrarian landscapes can enrich our understanding of the universality of these approaches. Additionally, investigations into the role of digital platforms and technology in enhancing intergenerational learning within agronomic communities

present an exciting avenue for future exploration. Understanding the socio-economic implications and policy frameworks supporting these community-based initiatives would further contribute to the evolving discourse on sustainable agriculture.

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A STUDY ON GUERRILLA MARKETING: A COST STRATEGY FOR START UPS, AWARNESSES AND EFFECTIVENESS

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Abstract

In the age of globalization where skill has occupied dissimilar gaits of lifetime and occupied a essential home in commercial particularly in advertising stadium, the rising cut gullet rivalry lead the builders of crops and facility breadwinners with a test to manage up the stresses of clienteles and also to accept dissimilar methods to quandary them towards their creation. The present investigation is concentrating on unconventional approaches used in promotion of advertising mix especially the unconventional approaches of commercials finished guerrilla marketing. Grounded-Theory research design was rummage-sale so as to discovery out responses of defendants towards the guerrilla announcements when obtainable to them. The sample size includes of 50 respondent members. The data was composed from dissimilar defendants in the age collection of 1827(new adults). Emphasis collection technique was accepted, where in dissimilar announcements, both pictures and electric social television announcements relating to guerrilla marketing was showcased to group of 10 defendants at a time and later on relevant queries were asked to the defendants following relaxed group meeting method to imprisonment the statistics about their consciousness and thoughts of paramilitary marketing. The current study is meant at stress the meaning of guerrilla marketing as tool for endorsing products and also to rouse attention among dissimilar commercial households and investors.

Keywords: *Guerrilla Announcements, Advertising, Globalization, Commercial.*

Introduction

Guerrilla marketing, a period that reverberates with the plan and strategies of guerrilla fighting, is a ground-breaking method to endorsing products or facilities. Unlike conventional marketing, guerrilla marketing flourishes on astonishment and originality, often working on an incomplete cheap. This form of advertising attaches unconventional and unanticipated approaches to enthrall spectators, making an unforgettable influence. Let's disruption down each feature of guerrilla marketing to comprehend its spirit and effectiveness.

Statement of the Problem

Numerous investigates have been lead to study guerrilla marketing and its influences on customer's procurement performance. The present investigation tourist attractions about how guerrilla marketing has been applied in the contemporary age that has made customer knowledge a fresher marketing announcement to filling the wants and requirements of the customer. As the commercial contests to live in the marketplace, it is required to accept numerous approaches to marketplace the creation like newspapers, tabloids, magazines, television, radio and so on. Seeing the meaning of non-traditional advertising, the spirit of guerrilla marketing as to how it has complete a enormous influence on the consumers procurement performance and which highest international businesses have accepted this kind of marketing plan and what were the consequences is being deliberated. The education also includes philosophies as to how the clientele were content with the advertising strategy. Such

arena inquiry is exclusive and stretches strong idea of how customers taste or favorites are given position when guerrilla marketing is applied.

Low-Cost Strategies

At the essential of guerrilla marketing is the usage of negligible capitals for all-out influence. Small trades and start-ups frequently accept guerrilla strategies due to their cost effectiveness. This feature is chiefly significant in an age where old-style promotion means can be excessively luxurious for many. By leveraging originality over cheap, guerrilla marketing heights the live field, letting lesser entities to compete with larger contestants.

Unconventional Methods

The hallmark of guerrilla marketing is its unconventional method. This can include anything from flash mobs to graffiti-style artwork, from viral social media movements to unforeseen community connections. These methods are intended to disruption the standards of old-style advertising and involve the spectators in a way that normal advertisements cannot.

Unexpected Venues and Techniques

Guerrilla marketing frequently takes residence in community chairs or through means that are not typically associated with advertising. This surprise factor is key to its success. For instance, a guerrilla campaign might use sidewalk chalk art to convey a message, or a flash mob in a public square to draw attention to a product. These unexpected venues and techniques create a buzz and are more likely to be shared and remembered.

Imaginative and Unique Ideas

Originality is the blood of guerrilla marketing. Each movement is frequently sole and custom-made to the exact creation or facility it endorses. This originality not only assistances in plummeting prices but also safeguards that the campaign attitudes available in the packed publicity space. The innovation of guerrilla marketing movements frequently clues to augmented television attention and word-of-mouth promotional.

Real Board Spectators Spread

- Notwithstanding its eccentric countryside, guerrilla marketing is extremely beleaguered. Dealers using this method have a strong sympathetic of their spectators and skill movements that reverberate straight with them. This absorbed method safeguards that the advertising labours are not missed on indifferent parties but somewhat spread those greatest probable to involve with the creation or facility.
- In spirit, guerrilla marketing is about rational outdoor the box and using creative and eccentric methods to permission a permanent imprint on the board spectators. Its low-cost, high-impact countryside makes it a good-looking plan for trades looking to make an important influence with incomplete capitals.

Philosophies of Guerrilla Marketing

Guerrilla marketing, and ground-breaking method to brand raise, is constructed on a substance of single philosophies. These philosophies usual it separately from traditional marketing approaches and leader marketers in making actual and impactful movements. Let's

investigate into each of these philosophies to comprehend their meaning in guerrilla marketing plans.

Be Original and Innovative: Stand-up Out from the Gathering

Originality is the keystone of guerrilla marketing. This code highlights the need for innovation and individuality in your marketing labours. The goalmouth is to make something so separate and unforgettable that it imprisons the populace's care promptly. This can be attained through ground-breaking thoughts, rare visuals, or attractive stories. The additional unique the idea, the additional probable it is to make a permanent imprint and distinguish himself from the overabundance of conservative announcements.

Reason Native: Directing Exact Sites or Spectators

Guerrilla marketing flourishes on a contained method. This code includes couture marketing labours to an exact public, area, or demographic. By concentrating on a native gauge, movements can be additional pertinent and reverberate more intensely with the board spectators. Contained strategies also let for a more modified method, development a sturdier joining among the make and the public.

Use Low-Cost Strategies: Exploiting Influence with Negligible Spending

One of the most attractive features of guerrilla marketing is its cost-effectiveness. These principle supporters for using low-cost methods to attain high-impact consequences. By trusting on originality and inventiveness rather than a big cheap, guerrilla marketing makes it

conceivable for lesser trades to contest with superior ones. This method is not only inexpensive but also inspires dealers to think outside the old-style publicity outline.

Be Unforeseen: Taking Consideration with Astonishment

Astonishment is an influential instrument in guerrilla marketing. This code includes using the component of astonishment to enthrall the spectators. By giving somewhat unforeseen, whether it's an unexpected presentation, an uncommon connection, or an eccentric announcement, guerrilla marketing can efficiently clutch and grip the spectator's consideration. This abruptness frequently clues to superior appointment and portion aptitude, intensifying the spread of the movement.

Get Authorization: Regarding Limitations and Validities

While guerrilla marketing inspires brave and eccentric strategies, it's vital to function within lawful and principled limitations. This attitude emphasizes the position of procurement essential authorizations, particularly when using municipal chairs or secluded stuff. It also incomes regarding grassroots confidentiality and circumventing campaigns that strength be invasive or aggressive. By guaranteeing that all guerrilla marketing doings are legalized and deferential, makes can evade undesirable reaction and uphold an optimistic civic look-alike.

Types of Guerrilla Marketing Strategies

Guerrilla marketing is all about eccentric plans, astonishing spectators, and making a large influence with negligible

capitals. Let's dump into some of the most original guerrilla marketing strategies

Ambush Marketing: The Painting of Astonishment

Ambush marketing flourishes on the component of astonishment. It's about insertion your creation or facility where people smallest imagine it. Imagine mobile down the road and abruptly discovery a spring-operated stock of your preferred make in a passage. That's ambush marketing at its finest! It's not impartial about being there; it's around being there in a method that no-win situation your spectators unready and greeneries a permanent imprint.

Street Theatre: Play Encounters Marking

Street theatre takes publicity to an affected level. Image performer's execution a short production in a packed plaza, flawlessly mixing a product into their ground. This isn't just a presentation; it's an attractive and communicating method to attraction persons in and creates an expressive joining with the make.

Snickering: Minor But Enormous

Snickering strength seem humble, but it's an influential instrument in guerrilla marketing. Labels with memorable expressions or fascinating projects located deliberately can turn ordinary substances into publicity stages. Think of a label on a spotlight column that makes you break and contemplate, or an individual scheme on an underpass bench that no-win situation your judgment. It's the diminutive belongings that make a big change.

Chalk Art: Provisional But Impactful

Chalk art transports a squelch of colour and originality to the roads. This procedure of guerrilla marketing usages paths and roadways as paintings to take make communications. It's not impartial about sketch consideration; it's about making an instant of admiration and gratitude. Chalk art is impermanent, but the imprint it shrubberies can be continuing.

Opposite Graffiti: Spotless Messaging

Opposite graffiti is an exceptional rotation on old-style graffiti. In its place of addition to a superficial, it includes housework grime off community seats to disclose a communication. It's ecological and extremely imaginative. Envisage ambulatory through a passageway and near-sighted a good-looking, unsoiled double or memorandum developing from the filth. It's a communication that not only attitudes out but also says about the make's promise to the setting.

Instances of Fruitful Guerrilla Marketing Movements

Guerrilla marketing isn't just about originality; it's about influence. Let's travel some movements that not only wedged the populace's care but also left-hand a permanent spot.

There Are Numerous Instances of Fruitful Guerrilla Marketing Movements, Counting

Oreo's Dip in the Dark: A Social Broadcasting Criticize Dunk

The Oreo Cookie Dip Movement was a master class in social broadcasting appointment. Throughout a main brownout at the Wonderful Bowl, Oreo chirped, "You can still dip in the dark," taking the instant flawlessly. This humble, opportune

communication reverberated with masses, rotating an instant of night into an advertising achievement. It presented how immediate appointment and an ingenious twist can generate a ring that's solid to overlook.

Red Bull Gives You Wings: Life-threatening Marking

Red Bull's Dangerous Sporting Backings are evidence to the make's daring essence. From supporting sportspersons accomplishment breath-taking aerobatics to holding dangerous athletic proceedings, Red Bull has become identical with adrenaline-pumping enthusiasm. This bring into line flawlessly with their tagline, "Red Bull gives you wings," turning the make into a representation of vigour and bold.

Dove's Real Beauty: A Movement for Alteration

Dove's Real Beauty Campaign was ground-breaking. By selecting to eye real females with varied form kinds and casing tenors, Dove dared the conservative values of loveliness. This movement didn't just vend crops; it flashed chats about form positivity and self-acceptance, showing that guerrilla marketing can be an influential instrument for communal alteration.

Review of Literature

Guerrilla marketing is essentially a kind of marketing message (MC) which touches the consumer behaviour. The chief drive of guerrilla marketing is to improvement the customer's consideration by dissimilar gears and methods such as Individual Relatives, Direct Advertising and exceptional advertising (Royne, 1999).

It was originating those Customers who fit to the Cohort Y, i.e. Baby Boomers (Paul, 2001), incline to disregard all caring of ads. The rudimentary aim behindhand this is the robust devotion towards the makes which are a likeness of their individual independence; this devotion has been constructed over ages and can be understood particularly throughout their acquisition old-fashioned, where they incline to acquisition belongings which stretch them gratification. (Yin, 2001).

Marketing plays a key part in real delivery of the creation from the sweatshops. Hence, marketing plays an important role in the manufacture procedure and is careful heart of a lucrative innovativeness. Marketing has changed himself over period and became the main to manufacturing and economic growth. Modern initiatives are publicizing themselves to gunshot out to be additional advertising anxious with in instruction to endure, increase and embellishment. Modern Management is continually annoying to join the painting of technical know how to marketing, industrial processes and methods (rosenbloom, 2011)

Word of Mouth (WOM) is viral advertising; which has the capability to produce twin and size purchaser dishonourable on the communal systems it is an aptitude to make a hawser among the present and future customers, it everything in the procedure of linkage one distribution with insufficient and insufficient distribution the info relating to the creation and facilities with numerous in procedure allowed of preferment captivating home for the creation.

Significance of the Study

This education helps to improvement painstaking information of how guerrilla marketing effects clientele to purchase the creation i.e. consumer buying behaviour.

Objectives of the Study

- ❖ To comprehend guerrilla marketing professionally, to distinguish the dissimilar kinds of guerrilla marketing rummage-sale.
- ❖ To education the designated businesses and their plans applied during the guerrilla marketing.

Scope of Research Study

The education includes distinguish how global makes have accepted guerrilla marketing and in what way they have shaped an influence on consumer purchasing performance.

Limitations to the Study

- The emphasis collection designated is minor and precise statistics will not be gotten.
- The education of the research is in Chennai. Not essential all the district persons have alike estimation about guerrilla marketing.
- Age group careful for investigation may not be illustrative of all stage groups of persons.

Discussion on Findings of the Study

Q1. Are you acquainted with the idea of guerrilla marketing?

Most of them, 75% agreed to distinguish the notion of guerrilla marketing.

Q2. What do they think about exceptional advertising movements of guerrilla marketing?

Most of them, 85% said that they found the non-traditional way of publicity much more suitable and bother allowed, while

around touched that if the publicity side is real enough it can result in extremely original, never supposed of before advertisement movements

Q3. Whether they think sole publicity would help in helping the business?

Most of them (98%) decided, they said that if the publicity movement was done in a correct way seeing all stage collections, then it would have countless consequences for the business.

The important now was that the movement should plea to all the lessons and crowds.

Q5. Whether they think guerrilla marketing would be fruitful?

Respondents had varied responses; some of them said and is a traditional republic. While there were an insufficient who supposed that guerrilla marketing could be lead in a correct way, this would be fruitful if the publicists are able to change the guerrilla marketing movement rendering to Chennai and its circumstances.

Q6. Whether these guerrilla marketing campaigns were able to influence them?

The response to this was 98% yes. All fitted to the young age collection of 18 to 27 ages. All of them felt it was fairly thrilling and must be practical to other crops.

Conclusion

Guerrilla marketing, with its stress on originality, spectator's appointment, and cost effectiveness, is an influential instrument in the dealer's store. It tests the standards, thrusts limits, and unlocks up a biosphere of potentials for make raise. By acceptance the philosophies of guerrilla marketing, industries of all extents can generate effective movements that not only influence their bull spectators but also

permission a permanent, optimistic imprint. The education accomplishes that greatest of the defendants are conscious about the idea of guerrilla marketing; though the defendants are ignorant about the dissimilar sizes of guerrilla marketing. Guerrilla marketing if applied correctly in Chennai area, would be a main success amongst the childhood.

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CRITICAL ANALYSIS OF CYBER CRIME – THREAT TO NATIONAL SECURITY

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Abstract

In the modern world of Information Communication and Technology (ICT), cybersecurity has developed into a challenging and quickly evolving security issue. Cyberthreats seem likely to target every aspect of national economies and infrastructure as the world's reliance on ICT grows. This paper delves into a critical analysis of cybercrime, its evolving landscape, and its impact on national security and emphasizes the urgent need for proactive measures to secure cyberspace and safeguard national security.

Keyword: Cyber-crime, Cyber security, National Security, IT.

Introduction

In today's increasingly digital world, Cybersecurity has become a serious concern for countries and organizations worldwide as reliance on technology continues to grow. India is not an exception. India's national security is greatly concerned about cyber security. The national security of India, as well as the welfare of its people, enterprises, and other interests, is seriously threatened by these challenges. In fact, an increase in cyberattack incidents targeting individuals, corporations, and governments has coincided with a growing global reliance

on computers and Internet-based networking. It is mostly a web-based dispute involving a politically motivated cyber attacks on data and data infrastructure. Among many other things, cyber attacks have the ability to take down official websites and networks, interfere with or cease important functions steal or change classified material, and disrupt financial systems.

The implications of cyberspace crime for national security derive from the way technology is used by hostile elements. This paper suggests a policy-directed analysis of the definition of

cybercrime and its impact on the country's security. It has a description of collaboration between organized crime, criminals, and adversarial groups, It talks about the business of cyber reconnaissance and cyber assault capabilities, enabled by constantly advancing technologies and the expansion of the illegal market for IT services. At this point, cybercrime is hardly noteworthy outside of the domains of law enforcement and IT risk management.

Methodology

The doctrinal research approach is used in this paper. Secondary and tertiary statistics from sources like books, periodicals, essays, e-sources, newspapers, and other sources are used. Numerous magazines, articles, newspapers, journals, e-books, specific legislation acts, conventions, policies, regulations and schemes were referenced.

Objective of the paper

The overall objective of a research paper on cybercrime threats to national security would be to analyze the evolving landscape of cybercrime and its potential to compromise a nation's critical infrastructure, sensitive data, and overall stability. Here are some specific objectives that a research paper on this topic could address:

- 1.To identify and categorize the different types of cybercrime that pose a threat to national security. This could include cyber espionage, hacking of critical infrastructure, disinformation campaigns, and online extremism.
- 2.To assess the potential impact of cyberattacks on national security.

- 3.To evaluate the effectiveness of existing cyber security measures in mitigating cybercrime threats.

- 4.To identify the strengths and weaknesses of current cyber security policies, technologies, and international cooperation efforts.

- 5.To develop recommendations for improving cyber security preparedness and resilience.

- 6.To raise awareness about the growing threat of cybercrime to national security.

By addressing these objectives, a research paper is to help the policymakers and stakeholders in developing more effective strategies for protecting critical infrastructure, sensitive data, and national security from cyber attacks.

Cyber crime

The term "cyber crime" refers to a wide range of illegal activities, from electronic cracking to denial-of-service attacks, in which computers or computer networks are employed as a tool, a target, or a location. In terms of national security, cybercrime can include information warfare, classic espionage, and activism, along with its actions. Most computer users are utilizing the computer for the erroneous purposes either for their personal benefits or for other's benefit since decades. This gave birth to "Cyber Crime". Cyber Crime as the crimes committed using computers or computer network and are usually take place over the cyber space especially the Internet. Cybercrime is often referred to as e-crime, high-tech crime, information age crime, computer-related crimes, etc. With more than 560 million internet users, India is the

second-largest online market in the world, behind China. People now depend on it for everything because of technology. The Internet is a "double-edged sword".

Cyber laws in India

There are a lot of disturbing incidents occurring in online these days. As the Internet is anonymous, it is possible for people to engage in a wide range of illegal actions with safety. As a result, wise people have been abusing this feature of the Internet brutally to further illegal activity in cyberspace. That's why India needs cyber laws.

- 1.The Information Technology Act, 2000
- 2.The Information Technology (Amendment) Act, 2008
- 3.Information Technology Rules, 2011
- 4.Indian SPDI Rules,2011 for Reasonable Security Practices
- 5.National Cyber Security Policy, 2013
- 6.National Cyber security Strategy 2020
- 7.Reserve Bank of India Act 2018
- 8.The Digital Personal Data Protection Act of 2023 (DPDP)

Additional legislation pertaining to cyber security includes Indian Penal Code 1860 (IPC), which penalizes offenses like defamation, cheating, criminal intimation, and obscenity performed online. The Companies Management and Administration Rules 2014, often known as the CAM rules, were established by the Companies Act of 2013 and mandate that businesses make sure their electronic records and security systems are protected from fraud and illegal access.

Where cyber do threats come's from

Cyber threats to national security encompass harmful actions in the digital domain that pose risks to a country's

infrastructure, sensitive data, and overall stability. These dangers span cyber espionage, assaults on critical infrastructure, and the dissemination of disinformation. The potential outcomes extend from economic harm to the jeopardizing of military capabilities, underscoring the vital importance of robust cybersecurity measures in protecting national interests. Cyber threats come from numerous actors, including:

1. Enemy Nations-States:

National cyber warfare programs provide emerging cyber threats ranging from propaganda, website defacement, espionage, and disruption of key infrastructure to loss of life. There are more complex and present more advanced threats. Their growing powers have the potential to seriously and permanently harm the national security of numerous nations, including the US. Because they can use technology and tools to efficiently target even the most difficult targets, such as classified networks and vital infrastructures like gas control valves and electricity grids, hostile nation-states represent the greatest risk

2. Terrorist Organizations:

Cyber attacks are a growing tool used by terrorist organizations to harm national interests. Compared to nation-states, they are less skilled at cyber attacks and are less likely to use cyberspace. Cyber terrorism, the use of digital tools and attacks for political or ideological motives, poses a significant and evolving threat to national security. Its potential to disrupt critical infrastructure, sow fear and discord, and undermine democratic processes makes it

a pressing concern for governments across the globe.

3. Corporate Crime Organizations:

Organizations involved in organized crime and corporate spying provide a threat because they might carry out industrial espionage to steal trade secrets or substantial amounts of money. These parties typically have an interest to steal trade secrets, assaulting competitors' critical infrastructure, or getting access to and using it as take advantage of through blackmail. **Cybercrime groups** that target businesses and individuals for financial gain, often through malware, phishing scams, and ransom ware attacks.

4. Hacktivists:

Hactivists work on a variety of political causes and objectives. Instead than causing harm to infrastructure or interrupting services, the majority of hacktivist organizations are more interested in distributing misinformation. Rather of trying to do as much harm as possible to an institution, their objective is to forward their political agenda. Motivated by political or social causes, hacktivists often target government websites and critical infrastructure to disrupt operations and raise awareness of their issues.

5. Disgruntled Insiders:

Insider dissatisfaction is a frequent cause of cybercrime. Since insiders may be permitted to view the data, they sometimes don't require much technical skills to reveal sensitive material. Employees or contractors with authorized access to systems can pose a significant threat if they become malicious or are compromised by attackers. Insider threats

can be difficult to detect and prevent, as they have insider knowledge of systems and vulnerabilities.

Major Cyber crime which threaten National security of India

India, a rising digital powerhouse, faces a major cybercrimes that threaten its national security. With initiatives like Made in India and Digital India boosting the country's economy, India is quickly achieving its digital goals. However, its reliance on computer systems and networks, cyber security becomes a problem. India is one of the most cyber attacked nations; therefore securing vital resources depends on its cyber security resiliency. These digital onslaughts infiltrate critical infrastructure, steal sensitive data, and sow discord, potentially crippling the nation's stability and well-being. The digital battleground presents multifaceted threats to India's national security, fueled by diverse cybercrimes.

1. Espionage and Data Breaches:

Malicious actors target government networks, critical infrastructure, and private businesses to steal sensitive data. Secrets that are essential to national security may be revealed through espionage, the covert act of taking confidential information. Cybercriminals or foreign intelligence services may attack defense contractors, government networks, or even seemingly innocent private businesses that store critical data.

Cyber attacks on Critical Infrastructure:

Power grids, transportation systems, and communication networks are vulnerable to cyber attacks. Sensitive information essential to national security is

stored in government databases, financial institutions, and communication networks. Cyberattacks may reveal sensitive information, interfere with financial transactions, and reduce public confidence in major entities. India's vital infrastructure is increasingly being the target of cyber attacks. The Kudankulam Nuclear Power Plant (KKNPP) experienced a cyber attack in 2019. An attack on the Mumbai Power Grid in 2020 resulted in a significant power outage, stopped trains in their tracks, and disrupted business activities.

2. Disinformation and Propaganda:

Imagine a network of fake information and faked films spreading around the internet to sow discord, distrust, and panic. Disinformation and propaganda campaigns weaponize information, aiming to destabilize communities, weaken national unity, and even trigger real-world violence. These digital wildfires pose a serious danger to national security because they may spread dissatisfaction throughout the country and decrease public faith in government institutions.

3. Cyber terrorism:

Terrorist groups may utilize cyber attacks to spread fear, disrupt critical infrastructure, and gain financial resources. There is both domestic and foreign terrorism existing in India when it comes to cyber terrorism. Cyberspace is used by corporations, government agencies, and military forces to store and handle large amounts of sensitive data. It helps the cyber terrorist in threatening national security. Terrorists primarily target India's administrative, economic, and security systems using cyber terrorism. India is

attempting to stop this sophisticated form of terrorism using a variety of strategies.

4. Financial Cybercrime:

Cyberspace is not only a digital playground in today's interconnected globe, but also a battlefield for national security and economic stability. Financial cybercrime is a threat to India's financial sector and a long-term damage to the country's well-being. Budgets for national defense, public welfare, and stability as a whole may all be impacted as a result. India is able to protect its national security from the growing threat of financial cybercrime by implementing a various steps and international collaboration.

Reports on cyber-crime in India

Cybercrime is a rapidly growing threat in India, posing significant challenges to individuals, businesses, and national security. According to the National Crime Records Bureau (NCRB), cybercrimes in India increased by 24% between 2021 and 2022. Other crime categories also showed an increase, including economic offenses (11%), crimes against older persons (9%), and crimes against women (4%).

In 2022, the mean financial impact of a cyber-breach was recorded at \$4.35 million. As per the "Crime in India" report, there were 65,893 incidents of cybercrime reported, which is a 24.4% rise from the 52,974 cases in 2021. "Under this category, the crime rate (per lakh people) grew from 3.9 in 2021 to 4.8 in 2022. According to the report, ransom accounted for 5.5% of cybercrime cases in 2022 (3,648 out of 65,893 cases), followed by sexual exploitation at 5.2% (3,434

instances) and fraud at 64.8% (42,710 out of 65,893 cases).

In the first half of 2023, approximately 12 lakh (1.2 million) cyber security events were reported to the Indian Computer Emergency Response Team (CERT-In), a 27% increase over the same time in 2022. According to a NortonLifeLock survey showed that 61% of Indian internet users reported having witnessed cybercrime in 2023. Financial fraud is the type of cybercrime that occurs most frequently in India. Between 2020 and 2023, this accounted for 75% of cybercrimes in India, with a peak of over 77% of crimes committed in that time frame.

Government role to protect national security

Protecting India's sovereignty, integrity, and security as well as its people from software that was stealing and surreptitiously transmitting users' data in an unauthorised manner to servers outside India were the stated aims of the restrictions. The Citizen Financial Cyber Frauds reporting and Management System (CFCFRMS) have over 10.10 lakh financial fraud instances recorded between January 1, 2023, and November 30, 2023. More than 4 lakh occurrences have resulted in savings of over Rs. 1000 crore since the CFCFRMS's launch on April 1, 2021. According to the research, India experienced over 400 million cyber threats across around 8.5 million devices in 2023, averaging 761 detections per minute. Bengaluru (14%) and Surat (15%) reported the greatest number of detections. According to a report released by the Data Security Council of India (DSCI) in

partnership with enterprise cybersecurity solutions provider Seqrite, there were 49 million behavior-based detections, or 12.5% of the total detections.

The Indian government banned 59 mobile apps in 2020 because they were a threat to the country's defense, sovereignty, integrity, and public order. Under section 69A of the IT Act, 2000, the Ministry of Electronics and Information Technology (MeitY) blocked a total of 581 applications, comprising 174 applications related to betting and gambling, 87 applications for loan lending, and other applications, including gaming applications such as PUBG, Garena Free Fire, etc.

Steps taken by the government

India plans to tackle the rising issues of cyber security by enacting new privacy and encryption laws. In order to improve cyberspace security, it could potentially change the current legal framework. In order to address cyber security concerns, India established organizations and published the National Cyber Policy in 2013. India has recently started a number of cyber security programs to protect cyberspace and provide digital empowerment to its people. India named its first Chief Information Security Officer (CISO) in response to growing cyber threats. The appointment indicates India's determination to protect itself from cyberattacks. It will assist India in creating the vision and guidelines needed to combat cybercrime and improve cybersecurity management. To address cyber security, the government has implemented a number of legislative, technological, and administrative policy

measures. Indian Cyber Crime Coordination Centre (I4C): This center coordinates efforts to tackle all types of cyber-crimes across the country.

India's Cybersecurity Regulating Bodies:

1. Computer Emergency Response Team (CERT-In)
2. National Critical Information Infrastructure Protection Center (NCIIPC)
3. Cyber Regulations Appellate Tribunal (CRAT)
4. Securities and Exchange Board (SEBI) of India
5. Insurance Regulatory and Development Authority (IRDAI)
6. Telecom Regulatory Authority of India (TRAI) & Development of Telecommunications (DoT)

Recommendation

1. One of the main problems with India's regulations in the cyber security landscape is that the government still prosecutes under un-clarified or outdated statutes, which can hinder progress and the implementation of adequate cyber laws and regulations. It is challenging for organizations to determine the appropriate policies and recommendations for data privacy and cybersecurity from vague rules and mixed legislative approaches.
2. India has to enact more comprehensive and educational cyber security laws, as well as clarified rules and reforms to develop a better cyber security framework and data protection legislation, in order to maintain internationally recognized cybersecurity standards.

3. Create proper awareness to the public about the security issues in cyberspace and ask them to strengthen their cyberspace with security features such as strong antivirus software, use of the official version of the software, avoidance of popup messages and websites, proper updating of password etc.
4. Establish comprehensive legal and regulatory frameworks, such as stringent laws against cybercrime with definite fines, efficient data protection guidelines, and specific rules for intermediary accountability.
5. Funding for cyber security education and training needs to be increased in order to produce a workforce with the necessary skills to protect against cyber attacks.

Conclusion

Cyber security is a national imperative as well as a technical challenge. To maintain economic progress, preserve national security, and protect the welfare of its population, India must acknowledge the seriousness of cyber threats and proactively strengthen its digital defences. Through the implementation of a clear and proactive strategy, India can effectively negotiate the complex landscape of cyberspace and assure digital future. To become a digital powerhouse, India must take aggressive steps to strengthen its cyber security defenses and address cyber-attack concerns that threaten national interests. This includes investing in cyber security technologies, educating the public and companies on safe online practices, and setting in place strong security measures to safeguard key infrastructure.

In the case of a cybercrime, the government must also collaborate closely with corporations and international organizations. By doing so, India can safeguard its residents, businesses, and national interests security in the age of technology.

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DIGITAL INNOVATIONS IN FINANCE

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Abstract

Digitization has significantly impacted digital finance innovations, leading to social and financial inclusion advancements. This has opened new opportunities for client access, back-office administration, and distribution strategies. Fin-tech offers quick finance discovery and flexible award conditions. Training for digital tools is crucial, and microfinance is expanding. Digitization has transformed banking, from brick-and-mortar to mobile. Major fin-tech app developers are leveraging 5G technology to empower consumers, enhance financial inclusive, and transform the banking industry's future.

Keywords: *Digital Finance, Fin-tech, Innovation, Artificial Intelligence, Financial Inclusion, 5G technology*

Introduction

The Indian government's demonetization and plan to make India a credit-only economy have highlighted the importance of digitization and its impact on various sectors. The government has made changes in the financial sector to improve the financial literacy of citizens by teaching them about computerized finance. Computerized India is a dream of the

government, and it is moving towards digitization in all areas. The integration of computerized finance can be achieved through government support and collaboration with organizations with reliable computer systems. The environment of computerized finance involves innovation providers, controllers, last-mile specialists, and clients with varying interests and skills. Co-learning

and joint effort are crucial to fostering this environment and achieving the goal of providing access to financial services to all.

The World Bank, Reserve Bank of India, and Public Investment Corporation of India are working together to expand Fin-Tech and their role in computerized finance in India. In the 20th century, India ranked third among 55 countries in having the most empowered environment for financial services.

Digital Innovation in the Finance Sector

Electronically providing formal financial services to the unbanked and unfit people is known as technologically sophisticated fiscal services. These services have three main components: advanced conditional stage, delegates and retail specialists, and user use. The public authority is actively working to advance the FinTech market in India through initiatives like demonetization, direct benefit transfer (DBT), UPI products like BHIM, QR code, AEPS, Ru paycheck cards, Public Computerized Clearing House (NACH), NEFT, and Constant Gross Settlement (RTGS). These efforts aim to improve the reception of Fin Techs by the public.

Digitalized Installation Strategies of India

- ❖ **NFS or MST Transmission over Stage:** Organizations have concocted promoting exchanges through NFS (close-to-handle correspondence) and ⁴MST (attractive, secure correspondence).
- ❖ **Digital Wallet Installment Framework:** Through this stage, cash is stacked in computerized wallets,

and you can add cash utilizing advanced wallet applications.

- ❖ **USSD Code Installment Framework:** On the off chance that you don't have a cell phone web office, you can still make installments by dialing the USSD (Unstructured Beneficial Help Information) code from your fundamental telephone.
- ❖ **Mobile Cash Identifier:** MMID is a seven-digit novel number given by the bank whenever you have enlisted your portable number.
- ❖ **UPI Application-Based Installments Stage:** UPI has thought of a remarkable Component of making a virtual location through which you can move cash without revealing your record number and uncertainty code to the receiver. UPI deals with an ongoing premise, which implies the cash is moved promptly.
- ❖ **QR code-based Installments Framework:** QR code is again an alternate system of making the exchange of installments where you just have to examine the QR code of the vendor and do the exchange of installments. The fintech market and fintech specialty units have been filling consistently in India for a long time.

Scope of Digital Innovation in Finance

Digitization innovations in monetary administrations are more than a popular expression. With the worldwide pandemic presenting tenacious difficult Fintech organizations, the area advanced and created new open doors for certain extraordinary thoughts. Today, the worldwide Fintech subsidizing remains at

more than \$100 billion, and the area is good to go to embrace arising innovations to partake in an upper hand. It will be energizing to see how Fintech organizations form procedures for an effective computerized change in money and expand business value. Meanwhile, there is a squeezing need for C-level pioneers to be light-footed and pay special attention to entering patterns in 2024 and the past to drive the organizations of tomorrow.

Fintech Tackles: An Overview

Fintech is a thriving industry, with the rapid growth of fintech companies and new businesses becoming a top priority for C-level leaders. ⁶As the industry evolves, businesses must stay updated and adapt to industry trends. Even small financial institutions need to refresh, change their work strategies, and consider advanced business models. A review found that 47% of financial services providers expect revolutionary computerized change in the next three years, and 53% expect more than 10% of their workforce to be mechanized and replaced by innovative technology in the next five years. At least 90% of respondents agree that computerized innovations are affecting the financial services industry. However, many financial service representatives do not fully believe their organizations are prepared for the disruption. In the face of market uncertainty and the corona virus pandemic, fintech companies need to allocate more space for development and social change. Business leaders should consider advanced change as an opportunity to try, adopt trends, and expand on the future's outcomes.

Impetus for Digital Innovations Need to develop client experience

A surprising client experience (CX) is the basis for client maintenance. Additionally, it is fundamental to the development of any business. As per an EY study, the bits of knowledge featured that north of 30,000 retail bank clients around *Tufano, Peter (2003)*. The world observed that the way to winning and holding clients in a serious financial climate was client experience that was second to none. It is judicious to find the appropriate ways to expand CX drives by circling in workers and teaching them about adding to fortify the brand. Besides, such drives empower them to convey first-rate and reliable brand encounters all through the whole client venture.

Smoothed Out Activities and Decreased Expenses

Indeed, there is a heap of benefits; nonetheless, the champion is that it smooth's out processes. One can encounter quicker development with work processes because of robotization, which is directed to further develop the way businesses work. Besides, it essentially diminishes the expenses of numerous interior and exterior processes. Many investigations feature how smoothing out activities has helped set aside timing and cash. Furthermore, it permits groups to be more proficient at working.

Teaches A Culture Of Innovativeness and Development

Advanced change mixes business inventiveness and development, which triggers revolutionary, authoritative change. One can use creative innovation answers to work on their business in the

money business scene. The change doesn't happen out of the blue, and C-level pioneers should persistently encourage a climate where embracing these initiatives is simple. They can embrace emerging innovations and other pivotal devices or models and watch their organizations flourish.

Expansion in Deals

The computerized change in finance organizations compels them to change their plans of action to adjust to the new market's real factors. With the utilization of new advances, organizations can interface with their clients and streamline their business tasks, which opens new deals and amazing doors. Fintech organizations that have embraced computerized changes have an upper hand and a higher market valuation. How? They can apply the right mix of computerized apparatuses, examination, and human commitment.

Further Development Investigation

Information examination is a fundamental stage toward information investigation and can assist with going quite far in a direction. As you gear towards partaking in the effects of computerized change, it means quite a bit to pay special attention to cutting-edge calculations and improve computer-based intelligence and the scope of specialty programming arrangements that can help your computerized change drives, which will gigantically affect your information and business examination.

Emphasize Digital Financialization

- ❖ **Man-Made Intelligence and ML Upgrade Client Encounters**

Man-made reasoning (man-made intelligence) and AI (ML) are two doyens that are making waves in the monetary administration industry. In addition, advancements in computer-based intelligence have changed each part of the monetary business scene. Artificial intelligence and ML make it simple to moderate extortion and tax evasion gambles. Besides, one can make quicker, more astute exchange choices in light of more keen examinations of past market execution information. Computerization with chatbots and other mechanized cycles can essentially increment functional efficiencies. For instance, Erica, the remote helper by Bank of America, demonstrated the worth of chatbots to client commitment, surpassing 6,000,000 clients and handling more than 35 million solicitations.

- ❖ **Internet of Things (IoT)**

Financial oversight of the organizations hoping to work on their ongoing items and administrations can gain from client buying conduct and improve customized client encounters. The IoT applications being used in the monetary administration industry today incorporate utilization-based protection to break down bio metrics information to further develop the credit guaranteeing process. Moreover, IoT gadgets, like brilliant sensors, can further develop labor force elements by monitoring representatives' developments and working propensities. The experiences can assist with decreasing the structure of the board and utility expenses.

- ❖ **Block chain**

With regards to taking on block chain and dispersed record innovation, the monetary

administration industry is still in its beginning phases. Notwithstanding, block chain innovation might fortify inventory chains, exchange frameworks, and guarantee handling through the utilization of shrewd agreements. There are energizing prospects; for example, monetary informing administrations that require days to work with worldwide installments and cash moves can be finished in mere seconds and run all day, every day, with blockchain-fueled frameworks. With such splendid advantages, over 33% of all monetary administration associations are thinking about sending in 2024 and then some.⁸

❖ **Network safety and information protection are the main concerns.**

Financial organizations have a gold mine of touchy client and outsider data. Normally, the information can be vulnerable to cyber-attacks. Any break can prompt extreme results, which incorporate a deficiency of cash and notoriety. Additionally, they will comprise lawful cases and authorities. In this scenario, information protection and network safety for monetary administration organizations are the greatest difficulties. With the new advanced drives, organizations should zero in on additional discovery and reaction, increasing their continuous protection systems. The drives can assist with confronting the difficulties in additional vigorous ways.

❖ **Enormous information prompts effective computerized change.**

The business industry is quickly adjusting to enormous information. Why? With zeta-bytes of information moving from mobiles, PCs, and machine sensors, producing

value from the data is judicious. Current enormous information investigation arrangements can assist monetary associations with approving immense volumes of heterogeneous information. The C-level forerunners in the monetary administration scene are now brainstorming better approaches to advertise their administrations and using the information to work with additional customized encounters for their clients.

Cloud and Portable Arrangements on the Ascent

With the worldwide pandemic, customers have rushed to find versatile answers for their regular financial necessities. As indicated by experts, new versatile financial enrollments expanded by an incredible 200%. Normally, business pioneers need to zero in on their businesses' computerized capacities. Also, finance associations are progressively careful of the cloud to rethink computerized intercessions. The present cloud offers a promising objective for monetary re-appropriate their information stockpiling and access progressed programming applications. Also, cloud movement can save around 15% on all IT spending and small to medium-sized organizations can set aside 36%.

Mechanical Cycle Mechanization (Rpa) To Expand Exactness

As indicated by Gartner, around 80% of money pioneers have previously carried out or are intending to carry out mechanical interaction mechanization (RPA). However, it very well may be a difficult accomplishment, but it could increase the computerized capability of organizations. Finance and mechanical

technology are quickly developing. Full-cycle robotization could improve the precision of monetary investigations and figures. Besides, with a mix of money, mechanical technology, and other savvy computerization innovations, organizations can anticipate driving more prominent proficiency, consistency, and efficiency.

Wrapping Up

The C-level pioneers today assume a significant role in the monetary administration industry by guiding their organizations to become computerized champions. The time has come to capitalize on the open doors with computerized change to speed up business and procure an upper hand. There is a need to foster a reasonable comprehension of the business' computerized potential, pay special attention to patterns, and implement the right procedures and innovations. It's an opportunity for future-confirmation finance organizations to speed ahead for another reality driven by computerized change.

Predictions for Digital Innovation In The Future

Digital innovation in the future is predicted to transform the financial sector, making transactions touch less and doubling business insights. The financial cycle will see real-time finance, with regular reports no longer impacting operations and decision-making. Self-service will become the norm, and finance will be concerned about this. As robots and algorithms become part of a diverse workforce, new service delivery models will emerge, integrating freelancers, gig workers, and the cloud. Traditional enterprise resource planning will face challenges from

financial applications and micro services, while major providers will also be available. Data standardization will be a challenge, and companies will continue to struggle with data clutter. The workforce and workplace will adapt to new ways of working, potentially making CFOs uncomfortable.

Empowering Financial Innovations: 5G in the Finance Industry

5G technology has the potential to revolutionize the banking industry by enhancing efficiency, customer experiences, and innovative solutions. It can facilitate high-speed transactions, AI-driven customer services, contactless payments, smart insurance policies, enhanced customer engagement, smart ATMs and branch automation, IoT-driven banking services, secure and efficient remote services, real-time fraud detection, and blockchain and crypto currency transactions. High-speed transactions and payments will occur in real-time, optimizing investment strategies and enhancing market efficiency.

AI-powered chatbots and virtual assistants will provide real-time customer support, reducing operational costs. Contactless payment methods will be enhanced with biometric authentication technologies, allowing users to make secure payments with a simple glance or touch. Smart insurance policies will benefit from real-time data on customer behavior, promoting safer and more cost-effective coverage. Banks can offer immersive customer experiences through virtual reality and augmented reality, such as virtual branch tours and personalized investment simulations.

5G-enabled ATMs can offer improved functionality, such as real-time video assistance for complex transactions and remote check deposits. In-branch automation can also benefit from 5G, allowing real-time data sharing between self-service kiosks, customer service representatives, and back-end systems. IoT-driven banking services, such as wearable devices, smart appliances, and connected vehicles, can provide valuable insights into customers' financial behaviors and needs, leading to personalized financial advice and tailored product offerings.

The low latency of 5G facilitates real-time data analysis, enhancing fraud detection and prevention capabilities. This allows banks to harness big data analytics for better customer insights, risk assessment, and predictive modeling. Blockchain and cryptocurrency transactions will benefit from 5G's network capacity, ensuring transparency, traceability, and reduced settlement times.¹⁰

Implication of 5G in the Finance Industry

By improving productivity, client satisfaction, and creative solutions, 5G technology has the potential to completely transform the finance industry. High-speed transactions, AI-driven customer support, contactless payments, intelligent insurance plans, improved customer interaction, intelligent ATMs and branch automation, Internet of Things (IoT)-driven financial services, safe and effective remote services, instantaneous fraud detection, block-chain, and cryptocurrency transactions are all made possible by it. Real-time, high-speed payments and

transactions will optimize investment strategies and boost market efficiency. Chat-bots and virtual assistants driven by AI will offer real-time customer help, improving customer satisfaction and cutting down on overhead. Biometric authentication technology will improve contactless payment techniques by eliminating the need for physical cards or pins. IoT devices linked to 5G networks give insurers access to real-time consumer behavior data, enabling telematics in insurance and fostering more affordable and secure coverage. Personalized investment simulations, virtual branch tours, and interactive financial education materials can all be used to provide customers with immersive virtual and augmented reality experiences.

Personalized recommendations, remote check deposits, real-time video support, and enhanced functionality are all possible with smart ATMs and branch automation. Real-time data exchange between self-service kiosks, customer care agents, and back-end systems can help with in-branch automation. Wearable technology, smart appliances, and linked cars are a few examples of IoT-driven banking services that can offer useful insights into the financial requirements and behaviors of their clients. This information can then be used to provide individualized financial advice and product options.

5G's reduced latency makes real-time data processing easier, improving the ability to detect and stop fraud. Banks can use big data analytic to improve risk assessment, predictive modeling, and consumer insights. Block chain technology

Digital innovation in 5G: Obstacles and Future Prospects

The adoption of 5G technology in banking will revolutionize several other industries and create new and advantageous prospects. Innovation in a variety of sectors, including entertainment, education, healthcare, and even transportation, will be spurred by 5G-enabled banking. Improving connectivity, making real-time data transfer possible, and encouraging the creation of fresh products and services. There are pros and cons to a fintech app development company integrating 5G technology into the finance sector.

Fintech companies face several challenges despite the enormous potential for the financial services revolution brought about by 5G's improved speed and connectivity. A large infrastructure investment is necessary to guarantee platform and service compatibility. Strong data security is crucial for consumer privacy and financial information protection. Overcrowding during high demand can disrupt real-time data transfers for fintech services. User adoption rates and 5G network accessibility must be considered, as customer service disruptions may occur during the transition.

To achieve a safe and seamless transition to a 5G-enabled environment, fintech companies will need to work in tandem with cyber security specialists, network providers, regulatory authorities, and fintech app development companies to navigate these obstacles. Ultimately, the revolutionary impacts of finance provided by 5G will reach insurance and associated sectors, stimulating creativity,

effectiveness, and superior results for enterprises and clients alike.

Conclusion

Fin-tech organizations have changed the essence of installments, credit, and settlements, and the public authority is driving from the front in computerized monetary consideration. Fintechs were admitted to the ledger by the grown-ups in India. It appears that there is still quite a while to go before India can turn into a credit-only economy. The greatest test before the government is the absence of information and mindfulness among individuals, worries about exchange security utilizing computerized installment techniques, and the gamble of hacking. A lack of framework and deficiency prepared by staff in the country and northeastern districts are going about as an obstruction to arriving at the advantages of computerized monetary administrations. Key projects and advancements/missions to further develop computerized and monetary proficiency are of great importance. A few dynamic measures and drives have previously been steered by the government toward this path, like rearrangements of expense methods, GST/Adhara-enabled computerized exchanges, portable banking, utilization of innovation to coordinate advantage moves (DBTs), etc. Execution of such drives should be additionally upgraded by close cooperation with all partners to fortify and work on the computerized environment in India

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DIGITAL MARKETING STRATEGIES ADOPTED FOR ATTRACTING RURAL CONSUMERS: A CONCEPTUAL STUDY

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Abstract

Digital marketing is rapidly developing in India. The impact of digital marketing on economic growth has shown a positive impact for the marketers in almost all sectors. Recent initiatives by major telecom operators and companies, such as lower data pack prices and low-cost mobile phones has resulted in an increase in the number of smartphone and internet users in rural areas, leading to digital literacy. And growth in digital literacy has paved way for digital marketing in rural areas. Since the urban market is becoming saturated, moving to the rural market is a sustainable option for companies. Even though digital marketing has several advantages like low-cost, real-time results, and wider audience over traditional marketing, the consumer reach of digital marketing in rural areas is poor. Marketers face challenges like pricing and styling of a product, literacy rate, local language preference, multi-media penetration and profession of the consumer. As there is a great potential to be tapped in, finding effective strategies is necessary for the growth of digital marketing.

Keywords: Digital marketing, economic growth, rural areas, digital literacy, consumer reach

Introduction

Digital marketing is rapidly developing in India. The impact of digital marketing on economic growth has shown positive impact for the marketers in almost all sectors (Bhagowati & Dutta, 2018). Several Indian organisations are adopting

digital marketing to gain competitive advantage. Rural digitalization is seen as an efficient technique of accelerating a country's development (Venkatesh, 2018). In India, more than fifty per cent of the GDP is contributed by the rural population. The "digital India" initiative

by the government has bought high-speed internet networks, and information and communication technologies (ICT) to rural areas. Currently, there are 78 million people using internet daily and 140 million using the internet at least once a month (Dar, 2019). The private sectors have also realised that the urban market is becoming saturated, and the other sustainable approach is to enter the rural market. HUL, P&G and ITC are companies that have successfully penetrated the rural market (Venkatesh, 2018). The E-CHOUPAL initiate by ITC has helped farmers to sell agriculture and aquaculture products online (Taiminen, 2022). Recent initiatives, such as lower data pack prices, by major telecom operators have resulted in a large increase in the number of internet users in rural areas. Moreover low-cost smartphones running on low-cost operating system like android one are helping the expansion of smartphones in rural areas (Kumar, 2019). India Digital marketing has led to a rise in purchasing power of the rural consumers. In the rural areas, a majority of the rural population have access to mobile phone and internet and seventy per cent of rural mobile users use different social media platforms, and fifty per cent of middle aged and old people use online shopping occasionally and seventy per cent of customers are youngsters (Venkatesh, 2018). Therefore, the rural market offers several opportunities for digital marketers to advertise and sell their products.

As there is a great potential to be tapped in, digital marketing has been introduced in the rural areas too. The term “digital marketing” has evolved over time.

It has changed from using digital channels to market goods to describing the process to acquire customers, build customer relationships, promote brands and increase sales (Verma, 2018). Kanna et al. (2017, P.5) defines digital marketing as “an adaptive, technology-enabled process by which firms collaborate with customers and partners to jointly create, communicate, deliver, and sustain value for all stakeholders”. Digital marketing is a cost-effective method to promote business for brand awareness and business development. As the use of digital devices is becoming prevalent day by day, incorporation of digital marketing is a necessity to promote products (Sawicki, 2016). Marketers hire content writers, social media marketers, influencers, and use search engine optimization, pay-per-click and website traffic to bring their products to the limelight (Gawade, 2019)

Impact of Digital Marketing in India

India’s digital marketing industry is growing at the rate of 33.5 per cent per year and the value of digital marketing is expected to exceed Rs. 255 billion (Srivastava, 2022). Seventy-two per cent of the marketers have moved from traditional marketing to digital marketing and thirty-four per cent companies have an integrated digital marketing strategy (Kumar, 2019). The cost-effectiveness and interactivity are undoubtedly the most remarkable aspects of future digital marketing in India (Kannan, 2017). Irrespective of educational qualifications and income, an increase in number of people are purchasing convenience goods through internet (Mahalaxmi, 2021). The research on market response modelling

shows digital marketing is effective for selling cars to Indian consumers. Every stage of the car-buying decision-making process, from need recognition to post purchase, was substantially influenced by digital marketing communication (Dahiya, 2018). Leading Indian firms like Myra, Zomato, Ola Cabs, Wow Momo, and many others are employing their email marketing strategy for a strong online presence and have seen significant growth. Ola autos used the email marketing strategy for professional commuters who are using public transport daily. This strategy received an overwhelming response, and Ola Auto is currently functional in seventy-three cities, with over two lakh autos on the road (Gulati, 2019). According to a study conducted in Nagpur, the educational institutions that began digital marketing had increased number of admissions compared to traditional marketing strategies (Gondane, 2021).

Farmers have also benefitted from digital marketing. They are able to find multiple buyers for their produce and sell them at a better price. E- choupal, Agmark.net, Uzhavan app, Naapanta app and Kishan sarathi are digital platforms which help farmers to sell their products online (Taiminen, 2022). Digital marketing has helped tourism sustainability and promotion. Kumar et al. (2020) pointed out that factors such as customer's demand for digitization, the existence of social media, and the use of virtual reality has led to development of tourism industry in India. Digital marketing has opened up a cost-effective marketing strategy for start-ups. Gulati et al. (2019) showed sixty-eight per cent of

Indian Start Up brands use digital marketing to promote their products and services, fifty-two per cent use digital marketing to generate sales and twenty-eight per cent allot over forty-seven per cent of their marketing budget for digital marketing. OYO Rooms is a successful startup in India that has used social media platforms for marketing. Even though digital marketing has penetrated several sectors in India, pharmaceutical business has not been able to fully embrace digital marketing (Rajasekharan, 2022).

Effective ways of Digital Marketing in rural India

The tactics used for digital marketing depends on the consumers. Several factors like target audience, brand awareness, access to technology and customer satisfaction affect the outcome of digital marketing (Eldahamsheh et al., 2021). Therefore, identifying effective means of digital market is crucial for the growth of a company. In India, seventy per cent of the population live in rural areas and have access to mobile phones and internet (Ravinder, 2022). Henceforth the scope for digital marketing is immense in rural India, but the fundamental challenge is language (Dewangan, 2022). The Common-sense Advisory board polled 3,002 consumers in ten countries in their native languages. The poll showed that majority of the consumer's avoided English - language website and avoided purchasing products that lack instructions or post-sales customer assistance in their language. Therefore, language directly correlates with the likelihood of purchase (Oza, 2019). In India, seventy-four per cent of the population is literate, but only

ten per cent are literate in English; the remaining sixty-six per cent can read and write in their regional language (Mohammed, 2022).

According to CSA's "Can't Read, Won't Purchase" report, sixty-eight per cent of internet users choose regional language in digital content as credible (Depalma et al., 2006). Therefore, using regional language in digital marketing will help businesses and brands gain a large number of customers. Moreover, availability of regional content will also increase the number of mobile users. Currently Google search engine and social media platforms provide nine Indian languages: Hindi, Tamil, Telugu, Bengali, Gujarati, Marathi, Kannada, Malayalam, and Punjabi and companies have begun integrating regional language in various components of digital marketing such as Search Engine Optimization (SEO), content marketing, and social media to attract customers. Brands like Policy Bazaar, Kotak Mahindra Bank, Rapido and Reckitt have started advertising in regional languages. Dettol India created a Hindi language website in addition to the English version. Customers who visit the Dettol Hindi website spend more time online than those who visit the English site. Rapido began advertising their bike taxis in four different languages on social medias and this has helped them expand the company in hundred cities. Policy bazaar is the leading internet insurance marketplace in India. Policy Bazaar employs Google trends such as Jivan Bima Plan (life insurance plan), sabse sasta term plan (cheapest term plan), and customises creative messages based on search demand

for these terms. This strategy led to eighteen per cent decrease in cost per lead, four per cent increase in incremental leads and eleven per cent increase in clicks through local-language keywords, compared to advertisements in English (Mohammed, 2022).

The percentage of illiterate population in rural India is seventy-three (Swargiary, 2022). For this group of people, literature suggest advertising in televisions, radios and you tube as effective methods of marketing (Mishra et al., 2020; Srivastava, 2022; Venkatesh, 2018). The Khan Khajura Tesan (KKT) by Hindustan Unilever (HUL) is a 'mobile radio' which provides on – demand entertainment to the rural areas of Bihar, Uttar Pradesh and Jharkhand. The campaign took advantage of All India Radio (AIR) to invite consumers to give a missed -call to a specific number, only to be called back and fed with joke which entertained them. KKT received around eight million subscribers within the first six months, proving to be an instant hit among rural consumers. Throughout the conversation, HUL interspersed advertisements for its mass consumer products such as Lifebouy, Ponds, and Close Up. Thus, the KKT campaign assisted HUL in communicating directly with its consumers in rural regions while also resolving the issue of poor penetration of digital media (Srivastava, 2022).

The 'mSamvaad' launched by GlaxoSmithKline plc (GSK) to advertise Horlicks in 'media-dark' rural areas of Bihar was a great success among mothers. The program's purpose was to generate awareness about the brand's scientific

credentials through a voice message recorded by celebrated Bhojpuri actor Ravi Kishan. They also created brand awareness through SMS, chat rooms, one-on-one voice calls and conference calls. The platform's major distinction is that it functions independently of the internet and can be utilised with any voice-enabled device, including landline and feature phones. GSK saw an increase in percentage of women aware of the brand and in purchase of Horlicks in rural areas (Koti, 2021).

Bala et al. (2018) suggests attracting the literate youth from rural areas is an effective method of digital marketing. Since, seventy per cent of the rural youth use the internet, SEO, social media platforms, Pay-per-click, e-mails, and content marketing are effective methods to draw consumers. Attracting the youth would aid in the propagation of their products through 'word of mouth' thereby increasing the overall purchase (Venkatesh, 2018). Moreover, rural markets require items that are tailored to their needs. Nokia, for example, supplied a customised phone with features appreciated by rural customers such as multi-lingual keypads, a built-in torch, and FM radio, available for less than Rs. 200. Likewise, LG received significant benefits from the customised 'Sampoorna' TV with easy-to-use features at Rs. 14,400, which was a success despite costing Rs. 2000 more than competing models. On the contrary, Godrej Appliances' Champion refrigerator did not fare well. So, Godrej conducted a survey to understand the rural consumer's requirement and created a compact refrigerator without a compressor,

powered by a battery, weighing less than 8 kgs, and including a top loading storage space for roughly Rs. 3,000 (Mishra et al., 2020).

The majority of the rural population are also farmers, and marketing products that aids in agriculture is an effective strategy. Netafim launched FlexNet, a leak-proof flexible pipe for improving the irrigation system in agriculture fields. They employed a multi-lingual campaign #Farming simplified on social media platforms. The product was subsequently introduced with a film that highlighted its performance, flexibility, durability, convenience of use with connections, and minimal labour cost. The campaign reached 5.8 million people and 1855 leads. Agrostar developed a digital platform through which farmers may directly obtain the necessary agricultural products at reasonable prices. The farmers connect with Agrostar either by a missed call or through 'AgroStar' android app. On receiving a call, the executive responds to their question, offers them customised agronomy and product recommendations, and places an order on the client's behalf.

Over the past two years, Agrostar has grown over 300% and has proved to be a game-changer in the field of agribusiness (Deshmukh, 2021). Similarly, for creating brand awareness among poultry farmers, Japfa started Japfa Neeti, a program for promoting better poultry practices. Farmers were invited to follow five easy biosecurity measures and share farm videos with Japfa on WhatsApp as part of a user-generated content contest. Cleanest farms would be highlighted and rewarded. The challenge compelled farmers to make

the required improvements to keep their farms clean. By campaigning for better poultry practices, Japfa became a known and trustable brand among poultry farmers (*Japfa Ltd | Sustainability Report 2021, 2021*).

Even though digital marketing in rural India comes with challenges, finding ways to market products is essential for a company's growth. Erda (2008) found that in contrast to urban consumers, rural consumers are less concerned with quality, function, and brand and are more concerned with pricing and style. Therefore, extrapolation of urban marketing tactics may fail in rural markets. In addition to these differences, the level of development in rural areas also varies across the country. For effective digital marketing, marketers must understand the rural consumer's niche and work towards it (Ravinder, 2022).

Conclusion

India is moving towards digitalization at a rapid pace (Vachhani, 2016). Adaptation of smartphones and internet has been increasing in the rural areas of India and this has led to a growth in digital literacy (Srivastava, 2022). Since the urban market is becoming saturated, moving to rural market is a sustainable option for companies. And growth in digital literacy has paved way for digital marketing in rural areas (Venkatesh, 2018). In addition to large companies, small and medium enterprises (SME) also rely on social-media marketing for developing their business (Chatterjee, 2020). Pradhan (2018) pointed out the lack of systemic research studies on digital marketing in small enterprises in India.

Even though digital marketing has several advantages like low-cost, real-time results, and wider audience over traditional marketing, the consumer reach of digital marketing in rural areas is poor (Lakha, 2018). Literature has shown that this is due to lack of insight about the target audience. Pricing and styling of a product, literacy rate, local language preference, multi-media penetration and profession of the consumer are the factors which affect the outcome of digital marketing (Deshmukh, 2021; Mishra et al., 2020; Ravinder, 2022; Srivastava, 2022; Venkatesh, 2018).. The choice of digital platform (television, social media, E-mails, phone calls, SMS and radio) is also important for creating brand awareness among people (Dewangan, 2022). Apart from ineffective marketing strategies, digital marketers also face a lot of challenges in marketing to the rural population. The rural markets in India are wide and scattered; majority of the villages have populations of less than 500 people. Only one percent of villages have a population more than 5000 people.

Therefore, choosing target markets and efficiently serving them is a difficult challenge. Marketers cannot meet the language expectations of rural people of the entire country, when developing advertisements. Henceforth, promotional strategies will always lack flexibility. Furthermore, 30% of the rural population lives below poverty line and cannot be targeted for digital marketing (Ravinder, 2022). In addition to these, lack of personal contact, trust, security and privacy are other problems faced by digital marketers (Bhagowati, 2018; Vachhani., 2016). Despite several hurdles, rural India

is an ‘untapped potential’ for marketers. Companies must frame effective strategies for implementing digital marketing in various parts of rural India.

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FOREIGN TRADE

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Abstract

Foreign trade, also known as international trade, refers to the exchange of goods, services, and capital between countries or territories. This type of trade enables nations to expand their markets and access goods and services that may not be available domestically. One way that international entities interact economically is through trade, which is an example of economic linkage. Multinational firms, foreign workers, and foreign financial investments are some additional examples of economic ties. Globalization is the term used to describe the expansion of these economic ties.

Key words: EXIM, International Trade, Economic Growth and Development

Introduction

International trade or foreign trade is the term used to describe the exchange of goods and services between countries. Trade of this nature strengthens and expands the global economy. The global market is used to buy and sell consumer goods, machinery, food, and raw materials. The commodities that are most frequently traded include food, raw materials,

clothing, machinery, television sets, and capital goods.

According to Wasserman and Haltman, "International trade consists of transaction between residents of different countries". Services like foreign transportation, travel and tourism, banking, warehousing, communication, advertising, and distribution and advertising have all seen remarkable increases in international trade. The rise in foreign investments and

the production of goods and services in a global economy are other equally significant developments. By bringing businesses closer to their global clientele, foreign production and investments will enable them to provide goods and services at deeply discounted prices.

International business encompasses all of the aforementioned activities. In summary, global production and trade are two facets of international business that are expanding daily on a global scale. The exchange of money, products, and services across international borders is known as foreign trade. It accounts for a sizeable portion of Gross Domestic Product (GDP) in the majority of nations. Although there has been international trade for a large portion of history, its significance in terms of politics, economy, and society has grown recently.

Historical Overview

One of the oldest customs in human history is probably the bartering of goods and services between various peoples. However, accounts and explanations of such trade start only with the rise of the modern nation-state at the end of the European Middle Ages. International trade, instead, refers specifically to an exchange between members of different nations. Trade became a specific area of study for political theorists and philosophers as they started to analyze the structure and role of the nation. The historical development of the foreign trade has been briefed in the following section.

Mercantilism

During the 16th and 17th centuries, mercantilist analysis gained significant

traction in European thought and centered on the well-being of the country. It maintained that acquiring wealth, especially wealth represented by gold, was crucial to the formulation of national policy. Because mercantilists considered the benefits of gold to be practically infallible, they never bothered to provide a convincing argument for why pursuing gold should be given such a high priority in their economic strategies.

Mercantilism stemmed from the belief that there is always a conflict between national interests and that the only way for one country to grow its trade is at the expense of other countries. As a result, governments were forced to set wage and price ceilings, support domestic industry, encourage the export of completed goods and the import of raw materials, and simultaneously restrict the import and export of raw materials and completed goods.

Consequently, the mercantilist philosophy's prescribed trade policy was straightforward: promote exports, inhibit imports, and seize the gold profits from the ensuing export excess. Though their trade policy may have been little more than a rationalization of the interests of a rising merchant class that desired wider markets hence the emphasis on expanding exports coupled with protection against competition in the form of imported goods, mercantilists' ideas were frequently intellectually shallow.

Liberalism

By the middle of the eighteenth century, a powerful backlash against mercantilist sentiments was taking shape. The Physiocrats, a group of economists in

France, advocated for trade and production liberty. Trade agreements with foreign powers should be negotiated, according to economists and businessmen who expressed their opposition to customs duties that are excessively high and frequently prohibitive. A number of agreements representing the new liberal ideas about trade were signed as a result of these attitudes changing, including the Anglo-French Treaty of 1786, which put an end to the two nations' economic conflict.

The fundamental principles of mercantilism were deemed untenable following the writings of Adam Smith. But this did not mean that countries gave up on mercantilist practices altogether. The argument that the government should, up to a certain extent, keep foreign goods off the domestic market in order to protect domestic production from outside competition was now used to justify restrictive economic policies.

Many national economies were successfully shielded from external competition in the middle of the 19th century by a protective customs policy. For instance, the 1860 French tariff levied astronomically high tariffs of 60 percent on pig iron, 40 to 50 percent on machinery, and 600 to 800 percent on woolen blankets, all of which were British goods. Additional protection was given by the cost of transportation between the two nations.

The Resurgence of Protectionism

In the latter half of the 19th century, a protective sentiment began to spread throughout the Western world. Most other countries quickly adopted a

protectionist policy modeled after that of Germany. The United States sharply increased its duties during the Civil War shortly after 1860, and the McKinley Tariff Act of 1890 was an extremely protective law. The only nation to uphold the ideals of free trade was the United Kingdom.

However, in contrast to the mercantilist practices that had been prevalent in the 17th century and were to be reinstated in the interwar period, the protectionism of the final quarter of the 19th century was relatively mild. By 1913, economic liberty had become the norm. Customs duties were low and stable, and quantitative restrictions were unheard of. Gold was a freely convertible currency that functioned as a kind of universal international money. In 1913, trade in the West was more liberalized than it was in 1970 in Europe.

The Contemporary form of Mercantilism

These trade arrangements were severely disrupted by World War I. World trade had been so severely disrupted by the end of the hostilities that recovery was extremely difficult. The dismantling of wartime controls characterized the first five years of the postwar period. Many nations implemented additional trade restrictions in 1920 as a result of the economic downturn and the benefits that depreciating currencies like Germany's brought to their respective nations. The world economy was engulfed by a protectionist wave that resulted from nationalist ideologies and economic pressure, rather than from policy makers intentionally adhering to any particular theory.

Classification of International Trade

Import Trade

It alludes to acquiring merchandise from an overseas nation. Countries import goods that they cannot produce due to financial constraints, physical impediments, or even the inability to produce those goods in sufficient quantities to meet their needs.

Export trade

It refers to the selling of goods to a nation abroad. The products in this trade are shipped abroad.

Entrepot trade

When goods are imported from one country and are exported to another country, it is called entrepot trade. Here, the goods are imported not for consumption or sale in the country but for re-exporting to a third country. So importing of foreign goods for export purposes is known as entrepot trade.

Characteristics of International Trade

Economic Growth and Development:

(I) Separation of Traders and Foreign Currency:

Producers and buyers are nationals of the same nation when dealing domestically, but they are not when dealing internationally. Foreign currency payments are a part of international trade. Trade with other nations involves the use of various foreign currencies.

Diversification and risk management

(I) Restrictions and need for Middlemen:

There are several restrictions on imports and exports, but they are imposed by various nations. Importing nations typically impose a number of import duties and restrictions on goods. In a similar vein,

there are a number of guidelines that must be adhered to when shipping products abroad. Because of the complexity of the laws, rules, and procedures governing international trade, middlemen are necessary. They provide their services to ensure that trade runs smoothly.

Since goods are transported over great distances and sometimes even across oceans, there is a much higher risk associated with foreign trade

Sustainable and Ethical trade

(I) Comparative Cost and Government Control

A nation will focus on producing the goods where it has a cost advantage. These products are exported to foreign nations. Conversely, it will import goods that are less advantageous in terms of cost or lack of specialization. Foreign trade is regulated by the government of each nation. It permits imports and exports to have an impact on the choice of nations with which trade will occur.

Foreign Trade Policy of India

India's foreign trade policy, formally known as the Export-Import Policy or EXIM Policy, is a set of guidelines and instructions established by the Directorate General of Foreign Trade (DGFT) under the Ministry of Commerce and Industry, Government of India. This policy is periodically reviewed and updated, typically every five years, to ensure it aligns with evolving global and domestic economic development. On March 31 of each year, the policy can be amended, improved, or expanded upon, with new provisions going into effect on April 1. The Directorate General of Foreign Trade (DGFT), a division of the

Ministry of Commerce and Industry (MoCI), oversees and facilitates foreign trade in India.

Objectives of the Indian EXIM Policy

- To accelerate India's growth in imports and exports.
- To promote long-term economic growth by making essential raw materials, capital goods, intermediates, components, and consumables more widely accessible.
- To increase the competitiveness of the agriculture sector and its services, to generate new job opportunities, and to promote the achievement of globally recognized quality standards.
- To offer premium products and services at reasonable prices.
- To promote economic growth by granting access to capital goods, installations, consumables, intermediate goods, raw materials, and other components required for increasing output and rendering services.
- To raise the technological potency and productivity of Indian businesses, services, and agriculture in order to gain a competitive edge, generate job opportunities, and meet internationally recognized quality standards.
- To provide customers with high-quality products and services at prices those are competitive worldwide.

The main objectives of the policy are to increase trade within the nation in order to spur economic expansion and job creation.

Advantages of international trade

(I) optimal use of natural resources:

Having trade with other nation's enables each to utilize its natural resources to the fullest. Every nation can focus on producing the goods for which its resources are most appropriate. Resource waste is prevented. People from various nations interact with one another. International trade promotes the sharing of ideas and cultures among nations. It fosters friendly relations, cooperation, and understanding between diverse nations. Owing to global competition, national producers strive to create goods of higher quality while keeping costs as low as possible. This improves productivity and offers advantages to customers worldwide.

(ii) Availability of all types of goods

By importing cheaper goods from other nations, it allows a nation to acquire goods that it cannot produce or is not producing because of higher costs. Trade with other nations promotes specialization and the production of a variety of goods in those nations. The benefits of division of labor allow for the relatively low cost of production of goods. The best modes of transportation and communication are necessary for international trade. The benefits of global trade also enable advancements in communication and transportation technologies.

Disadvantages of international trade:

(I) impediment in the development of home industries:

Domestic industry development is negatively impacted by foreign trade. It threatens the survival of the nation's emerging industries. The country's emerging industries run the risk of collapsing because of unrestricted imports and foreign competition. Imports of luxury

goods, counterfeit medications, and other items have a negative impact on the populace's health and economy. Sometimes, in order to generate foreign exchange, a nation's necessities that are in low supply are also exported. This leads to an inflationary shortage of these goods at home. For instance, India has been exporting sugar in order to receive foreign exchange, which explains the rising sugar prices in the nation.

(li) Economic and political dependence:

Conclusion

In the modern world, economic life has become more complex and diversified. No nation can exist in isolation and claim to be self-sufficient; the goal of international trade is to raise people's standards of living and increase production to compete in the global market. Foreign trade is a complex and dynamic field, influenced by economic, political, and technological factors. It's essential for countries to navigate these aspects effectively to maximize the benefits of international trade. It is not just a driver of economic prosperity but also a bridge that connects different cultures and nations. Its role in fostering development, enhancing global cooperation, and promoting sustainable practices is crucial in today's interconnected world. The future of foreign trade holds immense potential for innovation, growth, and global partnership, making it an indispensable aspect of the global economy.

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REVOLUTIONIZING BANKING- EXPLORING THE NEO-BANKING PHENOMENON

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Abstract

Neo banks are a new type of financial institution that is emerging in India. These banks operate completely online, without any physical branches. The main goal of neo-banking is to provide customers with a seamless online banking experience. This means that customers can access all of the services offered by traditional banks, such as money transfer, lending, and investment, through an online platform. Neo-banks are licensed by banking partners to offer these services. They differ from traditional banks in terms of their popularity, non-banking services, licensing, and appeal to younger generations. This article will examine the functions, features, benefits, and challenges of neo-banks.

Keywords– Neo Banking, Traditional Banking, Functions, Benefits, Challenges

Introduction

The growth of e-commerce has led to digitization in various segments such as payment, insurance, and investments. From a global perspective, India has the largest number of subscribers to the internet, smartphones, and users of social media. There are about 759 million digitally active customers in India and the active internet base is expected to increase by 900 million by the year 2025 (The Hindu, 2023). The growth of digital

banking has been promoted by the public digital infrastructure of India and other regulations and policies. Neo Banking is a completely digital bank which does not have any physical branches compared to a traditional bank. The impact of the COVID-19 pandemic has also provided an opportunity for banks to innovate and provide sophisticated digital versions of their services.

The idea of neo-banking came into existence between the years 2013-15.

Some of the initial players who began offering neo-banking services were Monzo, Revolut, N26, and Atom Bank in the UK and Germany. In India, Niyo Solutions was the first fintech to venture into neo-banking in 2016.

Neo Banks can be defined as those banks which do not have any physical presence and interact with their customer base through online modality only using “Information technology” and “Artificial Intelligence.” Neo banks offer a seamless online banking experience to customers. “The Reserve Bank of India has not approved 100% of their online banking service and hence Neo banks can provide the service through the traditional bank partners” (The Economic Times, 2021). The various services provided by Neo banks are fast opening of accounts, cloud storage, ease of making and receiving payments, transfers and remittance solutions, and creditworthiness to attract micro, small, and medium enterprises (MSME).

Statement of the problem

Neo Bank is a fully digital bank, which some people may not be aware of. This paper compares traditional and neo-banks, examining their functions, features, benefits, and challenges.

Objectives of the Study

- (i) To understand the differences between traditional banks and Neo Banks
- (ii) To examine the functions of Neo Banks
- (iii) To understand the features and benefits of Neo Bank.
- (iv) To identify the challenges of Neo Banks

Research Methodology

The study is descriptive in nature. The data is collected from secondary sources such as research articles, books, websites, etc.

Literature Review

Bhasin (2020) in his study stated that financial technology start-ups are launching Neo banks in India to make banking simple, convenient, and meaningful. These organisations are partnering with traditional banks and offer better solutions by using artificial intelligence and machine learning.

Magrath (2020) stated that the majority of customers would be worried about the security of financial information in Neo Bank. There can be multiple layers of security to protect the customer’s privacy.

Palepo (2019) in his article mentioned that there are more opportunities for Neo Bank in India as they have a targeted customer segment who are provided with much more digital services compared to what traditional banks are offering.

Hopkinson et al. (2019) stated the various changes brought by neo-banks in the banking sector such as transparency, low-cost structure, end-end customer service, 24*7 customer service, and tools of money management. Investment has become convenient and one can invest in mutual funds without any difficulty. Anyone can switch in and out through neo-banks and get a higher rate of interest compared to a traditional bank.

D’souza (2019) in her article mentioned that there is a great opportunity for Neo banks in India and Micro Small

and Medium Enterprises to get benefits through various aspects such as loan advancement, ease of payment method, and creditworthiness.

Differences between Traditional Banks and Neo Banks

Attribute	Traditional Banks	Neo Banks
Popularity among people	Traditional banks are more popular in terms of accessibility, awareness, and connectivity.	These are completely digital banks and do not have any physical presence and are novel to the Indian market.
Non-Banking services	Traditional banks provide a range of services beyond banking, including personal banking, locker facilities, factoring, and ATM services.	Neo banks do not offer non-banking services and therefore are not preferred by customers who need a complete banking experience.
Banking license	Traditional banks have a clear banking license and enjoy the trust of customers due to their physical presence. They are regulated by the RBI and the Banking Regulations Act, which increases customer confidence.	Neo banks are not regulated by RBI and rely on banking partners who offer financial services and products.
Popularity among the younger generation	The older generation tends to prefer traditional banks over other types of financial institutions.	The format of neo banks, driven by technology, is popular among the younger

		generation, but may not be as convenient for the older generation.
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Functions of Neo Banks

Neo banks are completely different from traditional or digital banks. They also save a lot of money on operational and overhead costs as there is an absence of physical locations, branches, and employees. Neo banks are non-licensed fintech companies that collaborate with traditional banks which provide access to funds for lending and hold the customer’s funds. Neo banks perform various functions, including operating the application, product distribution, acquiring and serving customers, and ensuring customer satisfaction. These banks also try to improve the customer journey through the existing actions of the customers. A neo bank account can be opened by a user free of cost and is beneficial to first-time earners and young learners.

Features of Neo Banks

The various features of Neo- banks are as follows:

- (i) **Single screen transfers-** Neo banks provide an improved user experience and options for multiple payments that users can get from a single screen.
- (ii) **Options for multiple payments-** Multiple payments can be done in several ways and one of them is API (Application Programming Interface) integration with third-party services. There is also a provision to send money through a variety of channels such as A2A (Application to Application), P2P (Peer to Peer

service), ACH (Automated clearing house), and PayPal.

- (iii) **User Experience** – Neo banks also provide the users with some kind of interaction with their application to customize their banking experience such as digital personal notes near the receipts and to add a search engine to find answers to what is needed based on the personal notes.
- (iv) **Gamification**- The provision for gamification enables users to personalize their accounts while playing with the icons. Several icons are available which help users visualize the various aspects related to receipts/ banking messages.
- (v) **Easy account opening**- Account opening is a very speedy process in Neo banking and the user needs to submit a photo of the driver's license or any national ID card.
- (vi) **Biometric technology**- The various facilities available are fingerprint recognition, eye print or ear scanning which provide positive and exciting user feedback on social networking websites and application store reviews.
- (vii) **Real-time fraud detection**- In online banking, out of pattern behaviour and a change of location can be seen as evidence of fraud.
- (viii) **Online lending**- Neo banks also provide users with the latest to apply online for loans using predefined algorithms which track qualified candidates for online lending programs.

Benefits of Neo Bank

- (i) **Easy creation of an account**- It takes less time to create a Neo bank account compared to traditional banks.
- (ii) **Speedy Service** – The technology is very user-friendly and enables customers to navigate through the neo-bank applications in a very efficient manner. Transfer of money and lending transactions take very little time in a neo bank.
- (iii) **Low Cost**- There are no monthly fees for maintenance for Neo banks when compared to traditional banks. The following factors such as the absence of physical branches, minimal regulation, and credit risk contribute to lower costs and result in higher revenues.

Challenges of Neo Banks

- (i) Neo Bank is a completely digital bank and is not able to provide all the services offered by a traditional bank.
- (ii) The Neo Bank is not regulated by RBI (Reserve Bank of India) and must depend upon banking partners to provide service to the customer.
- (iii) As neo banks have no branches, there could be a lack of trust among people thinking that their money is not safe.
- (iv) Several security concerns could arise as neo banks depend on third-party service providers who do not have quality cyber security measures.

Examples of some Neo banks in India

- (i) **Niyo Neo bank**
Niyo is one of the earliest Neo banks in India and has approximately 2.5 million satisfied customers. This organisation aims to make banking smarter, safer, and simpler and offers a

range of essential products and benefits.

(ii) **FI Money Neo bank**

Federal Bank is offering funding for Fi Money, which is a neo bank in India. With Fi Money, users can open multiple savings accounts and earn interest rates up to 5.1% on their savings. Additionally, Fi Money users can receive a Visa debit card along with a secure balance account that offers a maximum limit of ₹ 5 lakh.

Conclusion

The banking industry is currently experiencing significant changes due to the advent of digitalization, changing customer expectations, and regulatory modifications. In India, customers are demanding customized and comprehensive financial management solutions. Financial literacy has increased among millennials and Generation Z, and as a result, neo-banks have become a popular choice for those seeking low-interest credit, high-interest savings, and seamless, low-cost services. The main question remains whether or not neo-banks will prove to be successful.

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APPLICATION OF GAMIFICATION IN PUBLIC SECTORS UNITS

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Abstract

This study explores the integration of gamification in public sector units (PSUs). Gamification leverages game elements like rewards and leaderboards to enhance motivation and engagement in non-game environments. It investigates its application in business, revealing its role in improving employee productivity and customer engagement. Moreover, it delves into its use within foreign public sectors, discussing instances in countries like Singapore, Russia, and the UK. However, its successful implementation in Indian PSUs, particularly for white-collar workers, faces complexities due to the lack of standardized performance metrics and differing work dynamics, hindering its extensive adoption.

Keywords: *Gamification, public sector units, employee's engagement, performance metrics.*

Introduction

Gamification is a new age concept. It uses key game elements like leaderboards, rewards, tasks and various other elements, and these are put into the day-to-day activities of the business to make the people more motivated to accomplish the tasks and earn rewards as that of a game. Simply put, Gamification is adding game mechanics into non-game

environments. Gamification is used to motivate the people. The only difference from motivation is that gamification draws more key elements specifically from video games, because video games are incredibly engaging.

The term gamification is an interesting word; it hasn't been around that long. The term started to gain popularity around the last decade and is being used

more and more these days to describe a variety of different things. Gamification can be seen among children, their competitiveness makes them more curious to learn new things. Entrepreneurs applied this concept of gamification in business activities, which should be performed by the employees and workers by making the work fun by turning it into a game.

Gamification has resulted in various advantages, such as increasing user activity, social interaction, or quality and productivity of actions. These desired use patterns are considered to emerge as a result of positive, intrinsically motivating, “gameful” experiences brought about by game/motivational affordances implemented into a service.

OBJECTIVE OF THE STUDY

- To study the efficiency of gamification in increasing productivity in business.
- To find the role of gamification in the public sector.
- To identify the limitation of its application in Indian public service sectors.

Literature Review

1. Gamification of business processes: Re-designing work in production and service industry by Oliver Korn and Albrecht Schmidt (2015): this study examines the use of gamification in the non-game processes; the study covers the history, mechanics, applications, challenges, and the application of gamification in different sectors such as education, health, service, and production sectors. This study tells that gamification has different stages of development and acceptance

depending on the activity, this study further finds that certain ethical and legal issues need to be addressed to implement gamification as part and parcel of modern business processes.

2. Re-inventing Public Services Using Gamification Approaches by Mohamed Buheji (2019): In this study the author provides a theoretical framework on gamification in public services and case studies of the Kingdom of Bahrain, where gamification has been applied in services like the education, water, labor, traffic and etc. this study examines the psychological theories that underlie gamification, such as self-determination theory, flow theory, and goal-setting theory, and tells how they help to understand the motivational effects of the gamification on the people.
3. Gamification in e-Governance: Development of an Online Gamified System to Enhance Government Entities Services Delivery and Promote Public's Awareness by M. Alloghani, A. Hussain, D. Al-Jumeily, A. J. Aljaaf and J. Mustafina (2017): In this article is a case study on application of gamification in e-governance. The author believes that gamification is one of the solutions as the tool that can be accompanied with e-governance. The authors believe that the gamification helped in carving the employees more capable for the job. Many aspects such as efficiency, productivity, and the dedication of the workers can be accessed through the gamification.

4. Gamification in Public Service Provisioning: Investigation of Research Needs by Alexander Ronzhyn, Maria A. Wimmer, Gabriela Viale Pereira, Charalampos Alexopoulos, (2020): In this article the authors coin the term ‘Government 3.0’. This stage focuses on data driven and evidence-based decisions, this requires the involvement of the government, citizens, and other stakeholders. The author believes an increase in the participation of the citizens can be possible through the gamification.

Gamification in Business

In the world of emerging businesses and companies, the people engaged in the business have to deal with the problems and the tasks related to it. The use of gamification made these tasks more fun while increasing the efficiency, effectiveness and engagement all at the same time. Many large cap companies like, starbucks, domino’s, AMC, etc, use gamification in their day-to-day workings of the business to improve the involvement of the users and the employees. According to the Gamification Global Market Report (2023), the gamification market rises from \$14.87 billion in 2022 to \$18.63 billion in 2023. Business uses gamification in the form of rewards for specific actions, rewards for product usage, rewards for advancement, and etc. Hence, gamification is not just about the fun and increased participation; it provides businesses with a wealth of customer behavior data that improves the operational efficiency.

Nowadays, gamification strategy is incorporated in the daily activities of the

corporate fields, to improve the engagement among the employees and the customers. In the business fields, gamification strategy can be incorporated in various departments like sales, marketing, human resources and recruiting. It includes rewards, ranks, leaderboards, incentives and etc. statistics show that 90% of the employees say that gamification strategy increased their productivity and report a 60% rise in the engagement with a gamified work experience. Also, organizations that incorporate gamification strategies are seven times more profitable than those that do not use them. However, it is to be noted that the use of gamification strategy in the workplace does not imply the use of actual games; instead, it focuses on the mechanics of how the game works and incorporates it to make the work more productive.

To survive in this competitive world the business needs to adapt new techniques and innovations to maintain the market share. The companies that cannot survive in the dynamic market will lose their existence. Through gamification, the business can motivate employees in management and production and can also gamify the activities of the customers. Here is an example, we all may come across the language learning application called “Duolingo”. This application makes learning more engaging and interesting. The user gets gems, coins, and other rewards whenever they complete the tasks and levels. This makes ordinary learning methods more enjoyable. In another case, to sustain existing customers Starbucks introduced “My Starbucks rewards”,

whenever the customer buys star bucks products they earn stars. With those stars they can redeem gifts and rewards. It enabled the company to increase the 40% of the sale through the gamification.

Within business the businesses use gamification to engage their employees and make their work fun. Gamification also creates the platform through which employees' secret profits can be reduced to a small extent. To increase the ranks, they need to make their subordinates purchase products of the company. This increases the sales of the business and allows the employees to earn according to the level of purchases made by their subordinates.

Gamification in Foreign Public Sectors

We can encounter in daily life that the adeptness of the public sector is much lower compared to the private sector. We know that gamification can improve the efficiency and creativity, this can be implemented in Government sectors to improve the efficiency of the government. Gamification can be implemented in the recruitment process. This could be cost efficient, employees' competitiveness can be accessed and increase the involvement of employees. The Singaporean Government used virtual reality to train the Ambulance and fire truck drivers in extra special rescue scenarios, to help patients and evacuate people. By this way we can reduce the real life consequences that arise from the mistakes made by the drivers. The Russian and Spanish local governments use gamification to teach the efficient management of resources through the platform similar to the game known as 'Farmville'.

The engagement used in the gamification approaches lead to knowledge development, opinion expression, common problem solving, and influence governmental decision-making.

It is to be noted that the public sector is slower as compared to the private sectors, while implementing the new techniques. This is caused due to the political and bureaucracy factors which make the decision-making process to consume more time. So, as a result the concept of gamification and its strategies have not been fully implemented in the public sectors. However, there are still countries that have applied the gamification strategies in the public sector, yet the instances are still small.

There are few instances where the governments of other countries have tried to implement the concept of gamification in the public sector. In Sweden, speed cameras were installed, and the fines collected were distributed among the people who obeyed the speed limits. In the United Kingdom, the work and pensions department initiated a project called Idea Market, where the employees of the department can suggest new ways and ideas to improve the efficiency of the work done.

Difficulty of Application in Indian Public Service Sector

As we came to know that gamification can enhance the efficiency of the business in its day to day operations. This study will focus on its applications especially in Indian public sectors. There have been instances where gamification strategy has been successfully implemented in the private sector unit in

India, the companies like 'QuoDeck' and 'Breathe well being' applied gamification strategies which helped to increase employees engagement, productivity, retention and efficiency.

So the question here arises: can the gamification strategy be applied successfully in the public sector units? The answer to this question is not that simple. As when it comes to public sector units, the unit can be divided on the basis of blue collar workers and white collar workers.

Blue collar workers:

Blue-collar worker is a type of worker who works for wages based on the number of work done or time taken to complete the work; he may also be known as manual labor or skilled trades. Here, the application of gamification strategy can be implemented to its full extent. As when it comes to these types of workers, gamification in the form of rewards, bonuses, leader-boards can be used. There are various standards to measure their productivity and based on work done they can be rewarded. Even small rewards and recognition can boost their motivation, In return production is elevated.

White collar workers:

The white collar workers can be further divided into two components, 1. Workers engaged in desk works, managerial works in the various departments of the government 2. Workers who are engaged in the service sectors like health care, teaching profession etc. In both cases, the application of gamification is near to none. Because these types of workers are employed by constant scrutiny of the government through various exams and interviews. So the

remuneration granted to them is more than enough. So by applying gamification, where rewards in the form of bonuses are given, for these workers, these rewards are minimal and unattractive. Hence they are not motivated by mere rewards, and their efficiency can't be increased by this strategy. Although, through the form of leaderboards and ranking systems, their reputation among other workers could be increased. To increase their reputation some workers may be devoted to the work.

The negative gamification problem:

In order to apply the negative strategy of gamification to white collar workers, their performance has to be lower than the standard. But the question may arise, what is the standard here, i.e., what is the yardstick to measure their performance? The answer is that there are no proper tools to measure the standard performance expected of these types of workers. Hence, only positive gamification strategies can be used and negative strategies cannot be used. Therefore, gamification for white collar workers is applied near to none.

Conclusion

Gamification's potential in public sector units (PSUs) reveals a dual narrative. Across global businesses, its implementation enriches engagement and productivity, evident in success stories from major corporations. Yet, in Indian PSUs, its integration faces hurdles due to nuanced workforce dynamics and the absence of standardized performance metrics. While blue-collar workers could benefit from reward-based gamification, the efficacy for white-collar employees

remains limited, hindered by diverse job roles and evaluation complexities.

The complexity of implementing gamification in Indian PSUs requires a nuanced strategy. Customized frameworks, acknowledging the divergent needs of blue and white-collar workers, coupled with calibrated positive reinforcement mechanisms, could pave the way for its successful application. While challenges persist, understanding the unique landscape of Indian PSUs is pivotal in harnessing gamification's potential to enhance engagement and efficiency.

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AGRICULTURAL CHALLENGES AND SUSTAINABLE DEVELOPMENT TOWARDS WOMEN AGRIPRENEURS

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Abstract

Indian agriculture has to be more commercialized and diversified in order to increase income per unit of time and space and to create jobs based on agriculture. In order for this to occur, agribusiness must be formed from agriculture. For increased earnings, agriculture must transition from a subsistence culture to an entrepreneurial one. It was discovered that with the coordinated efforts of appropriate training of not only technical skills but also behavioural attributes, it is possible to build entrepreneurial competencies of farm women and mobilize women for group action to take up food processing and value addition agriprenurus for maximizing farm profits. There was a noticeable uptick in the drive for achievement and the instillation of an entrepreneurial spirit of taking risks. The article discusses the challenges and sustainable development opportunities available to women entrepreneurs in the agricultural sector.

Key words: Sustainable development, business Challenges, women Agripreneurs, Satisfaction, responsible factors.

Introduction

Women-led Agribusiness: A promising future Agriculture has long been perceived as a low-tech, dynamic sector

run by tiny, marginal farmers that primarily focus on providing for their families and selling what's left over to neighbouring markets for lower prices.

Future generations found agriculture unappealing as a result, according to Women Empowerment via Agripreneurship 1331. Due to economic liberalization, this situation has drastically changed during the past ten years. Nowadays, agriculture is viewed as a profitable endeavor that may be achieved by altering its traditional methods. There has been a significant impact in this sector from educating farmers about crop diversification, integrated farming, farm mechanization, market intelligence, value addition, post-harvest processing, new requirements for product quality, chain management, food security, sustainability, and other topics.

These changes have made room for portfolio entrepreneurship, innovation, and new participants. "Entrepreneur whose main business is agriculture or agriculture-related" is the definition of an agripreneur. Agripreneur: Agriculture plus Entrepreneurship. "Generally, sustainable, community-oriented, directly-marketed agriculture" is the definition of agripreneurship. A comprehensive, systems-oriented agricultural method that emphasizes the interactions between social, economic, and environmental processes is known as "sustainable agriculture." Once more, women's entrepreneurship is high on the government's agenda for empowering women and achieving better societal balance. A number of actions were required in order to accomplish this.

Statement of the Problem

Stakeholders have been debating the value of Indian women farmers and the myriad of cultural and economic obstacles

they face for a long time. Although policies, awareness campaigns, and seminars have been conducted to emphasize the value of female entrepreneurs in promoting national development and reducing poverty, Indian women entrepreneurs continue to confront a number of obstacles that stand in their way. These women, who are primarily small-scale farmers, are vital to the industry's expansion but are rarely recognized as significant economic forces because of prejudice and other obstacles that prevent them from realizing their full potential.

The rural market is governed by the values of women, who are the backbone of the economy. Since they frequently start and grow new agricultural business ventures, farm women are crucial to the agripreneurship movement. Even though they play a crucial role in ensuring household food security and reducing poverty in their communities, rural women entrepreneurs are rarely seen as powerful forces behind economic growth. Due to its labour-intensive nature, agriculture is the foundation of any nation's economic growth and provides women with business and employment options. The rural market is governed by the values of women, who are the backbone of the economy. Rural women entrepreneurs continue to face numerous obstacles from their counterparts. The primary goal of this article to examines the current circumstances and obstacles faced by rural women entrepreneurs in order to maximize their potential within the Indian economy.

Objectives of the Study

1. To analyze the Sustainable development and Production Challenges faced by women Agripreneurs
2. To Present Women Agripreneurs and your Level of Satisfaction towards Contribution to Sustainable development
3. To identify the factors responsible for determines the Sustainable Development of Women Agripreneurs

Research Methodology

The stratified random selection method was used to select 350 rural women farmers in Coimbatore as study subjects. Thirty-five of the 350 rural women agripreneurus are selected from each of the district of Coimbatore's ten taluks. For the study, the interview schedule method will be employed. Respondents will be contacted via interview schedule in order to obtain primary data. A variety of books, journals, periodicals, newspapers, and online sources will be used to gather secondary data. After being carefully examined, the original data will be fitted into the appropriate parametric and non-parametric statistical techniques.

Data Analysis

Table 1
Sustainable development and Production Challenges faced by women Agripreneurus

H₀₁: There is no association between Sustainable development and Production Challenges faced by women Agripreneurus

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.

Small Holding of Land	Between Groups	3.359	1	3.359	8.978	.003
	Within Groups	130.196	348	.374		
	Total	133.554	349			
Lack of Water	Between Groups	9.756	1	9.756	12.406	.000
	Within Groups	273.684	348	.786		
	Total	283.440	349			
Adverse Weather Condition	Between Groups	1.967	1	1.967	1.522	.218
	Within Groups	449.748	348	1.292		
	Total	451.714	349			
Lack of Adequate Labour	Between Groups	.674	1	.674	.732	.393
	Within Groups	320.244	348	.920		
	Total	320.917	349			
High Input Cost	Between Groups	.061	1	.061	.049	.825
	Within Groups	433.908	348	1.247		
	Total	433.969	349			
Lack of Quality Inputs	Between Groups	14.690	1	14.690	20.235	.000
	Within Groups	252.628	348	.726		
	Total	267.317	349			

Source: Computed data

There is no association between individual farm based business activity and small holding of land. The value of F (8.978) at low p-value of (0.003) indicates that the null hypothesis accepted at 1 percent level of significance. Hence it may be concluded that there is no association between individual Sustainable development and small holding of land.

There is no association between individual farm based business activity and Small Holding of land lack of water. The value of F (12.406) at low p-value of (0.000) indicates that the null hypothesis accepted at 1 percent level of significance. Hence it may be concluded that there is no association between Sustainable

development and Small Holding of land lack of water.

There is no association between individual farm based business activity and adverse weather condition. The value of F (1.522) at high p-value of (0.218) indicates that the null hypothesis rejected at 5 percent level of significance. Hence it may be concluded that there is an association between Sustainable development and adverse weather condition.

There is no association between individual farm based business activity and lack of adequate labour. The value of F (.732) at high p-value of (0.393) indicates that the null hypothesis rejected at 5 percent level of significance. Hence it may be concluded that there is an association between Sustainable development and lack of adequate labour.

There is no association between individual farm based business activity and high input cost. The value of F (.049) at high p-value of (0.825) indicates that the null hypothesis rejected at 5 percent level of significance. Hence it may be concluded that there is an association between Sustainable development and high input cost.

There is no association between individual farm based business activity and lack of quality inputs. The value of F (20.235) at low p-value of (0.000) indicates that the null hypothesis accepted at 1 percent level of significance. Hence it may be concluded that there is no association between individual Sustainable development and lack of quality inputs.

Table 2
Sustainable Development of Women agripreneurus Activity

Ho: There is no association between where you obtained the source of fund and Sustainable Development of Women agripreneurus Activity

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.927	2	1.363	.317	.259
Within Groups	1216.470	347	3.606		
Total	1219.397	349			

Source: Computed data

There is no association between where you obtained the source of fund and who inspired you to start this women agripreneurus. The value of F (.317) at high p-value of (.259) indicates that the null hypothesis rejected at 5 percent level of significance. Hence it may be concluded that there is an association between where you obtained the source of fund and Sustainable Development of Women agripreneurus activity.

Table 3
Women Agripreneurus and your Level of Satisfaction towards Contribution to Sustainable development

H0: There is no association between Women Agripreneurus and your Level of Satisfaction towards Contribution to Sustainable development

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Formal structure	Between Groups	11.492	5	2.298	.627	.679
	Within Groups	1260.625	344	3.665		
	Total	1272.117	349			

Finance	Between Groups	30.442	5	6.088	3.140	.009
	Within Groups	666.932	344	1.939		
	Total	697.374	349			
Government	Between Groups	2.560	5	.512	.442	.819
	Within Groups	398.297	344	1.158		
	Total	400.857	349			
Association	Between Groups	.622	5	.124	.162	.976
	Within Groups	263.267	344	.765		
	Total	263.889	349			
Trade websites	Between Groups	7.472	5	1.494	2.466	.033
	Within Groups	208.496	344	.606		
	Total	215.969	349			
Legal	Between Groups	25.717	5	5.143	1.857	.101
	Within Groups	952.880	344	2.770		
	Total	978.597	349			

Source: Computed data

There is no association between where you women agripreners and formal structure. The value of F (.627) at high p-value of (.679) indicates that the null hypothesis rejected at 5 percent level of significance. Hence it may be concluded that there is an association between where you women agripreners and formal structure.

There is no association between where you women agripreners and finance. The value of F (3.140) at low p-value of (.009) indicates that the null hypothesis accepted at 1 percent level of significance. Hence it may be concluded

that there no association between where you women agripreners and finance.

There is no association between where you women agripreners and government. The value of F (.442) at high p-value of (.819) indicates that the null hypothesis rejected at 5 percent level of significance. Hence it may be concluded that there is an association between where you women agripreners and government.

There is no association between where you women agripreners and government. The value of F (.162) at high p-value of (.976) indicates that the null hypothesis rejected at 5 percent level of significance. Hence it may be concluded that there is an association between where you women agripreners and government.

There is no association between where you women agripreners and finance. The value of F (2.466) at low p-value of (.033) indicates that the null hypothesis accepted at 5 percent level of significance. Hence it may be concluded that there no association between where you women agripreners and finance.

There is no association between where you women agripreners and formal structure. The value of F (1.857) at high p-value of (.101) indicates that the null hypothesis rejected at 5 percent level of significance. Hence it may be concluded that there is an association between where you women agripreners and formal structure.

Table 4

Factors that determine the Sustainable Development of Women Agripreners

KMO and Bartlett's Test	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.788

Bartlett's Test of Sphericity	Approx. Chi-Square	11538.010
	df	91
	Sig.	.000

Source: Computed data

The above table indicates that KMO measure of sampling adequacy is an index to examine the appropriateness of factor analysis. High values between 0.5 and 1.0 indicate that factor analysis is appropriate. Values below 0.5 imply that factor analysis may not be appropriate.

From the above table, it is seen that Kaiser-Meyer-Olkin measure of sampling adequacy index is .788 and hence the factor analysis is appropriate for the given data set. Bartlett's Test of Sphericity is used to examine the hypothesis that the variables are uncorrelated. It is based on chi-square transformation of the determinant of correlation matrix. A large value of test statistics will favor the rejection of null hypothesis. In turn, this indicates that 225 factor analyses are appropriate. Bartlett's test of Sphericity chi-square statistics is 11538.010, showing ten statements are correlated and hence as inferred in KMO, factor analysis is appropriate for the given data set.

Table 5
Sustainable Development of Women Agripreneurs

Component Matrix					
	Component				
	1	2	3	4	5
Decision making skill	.610				
Motivation from family members	.881				

Availability of finance	.726				
Social recognition	.568				
Economic independence		.626			
availability of more information about women agripreneurs		.863			
Easy access to agri marketing		.756			
Reasonable amount of return/profit		.755			
self confidence			.597		
Risk bearing capacity			.511		
Technical skill			.742		
Time management				.609	
More business opportunities				.098	
Inheritance					.886
Complete awareness about government schemes					.801
Incentives from government, NGO					.778
Extraction Method: Principal Component Analysis.					
a. 5 components extracted.					

Source: Computed data

Requesting principal component analysis and specifying interpretation obtained output of factor analysis. There are five stages in factor analysis.

Stages I is the factor extraction process, wherein the objective is to identify the number of component analysis in prospects and factors that determine the Sustainable Development of women

agriprenurus. In stage II, there is also a true of thumb based on the computation in eign value, to determine how many factors to extract. The higher the eign value of a factor, the higher the amount of variance explained by the factor. The three factors were extracted as 11.38 per cent of the variance.

The next issue of measurement was to examine the 16 adaptive prospects and factors that determine the Sustainable Development of women agriprenurus. A principal component analysis with varimax rotations was undertaken. Ten factors emerged. All factors loading were over 0.5 with the exception of three which were below 0.5.

Factor I consisted of four (1) decision making skill, (2) motivation from family members (3) availability of finance and (4) social recognition.

Factor II consisted of four (1) economic independence (2) availability of more information about women agriprenurus (3) easy access to Agri marketing and (4) reasonable amount of return/profit.

Factor III consisted of three factors (1) self confidence, (2) risk bearing capacity, (3) training programmes are provided to enhance my skills and (3) technical skill.

Factor IV consisted of two factors (1) time management and (2) more business opportunities.

Factor V consisted of three factors (1) inheritance, (2) complete awareness about government schemes and (3) incentives from government, NGO.

Conclusion

In small-scale farms, women are the foundation of subsistence farming. They generate a large amount of food worldwide, especially in developing nations. In tiny farms, women handle a variety of jobs such as planting seeds, pulling weeds, harvesting, and selling the produce. However, their production and income are constrained because they frequently do not have access to resources like land, water, and seeds. In addition, there are customary and cultural restrictions that keep women from owning land and taking part in decision-making. For life to continue on Earth, women's contributions to agriculture are essential. Achieving sustainable development and food security requires empowering women in agriculture, advancing gender parity, and boosting the number of women in leadership and innovation in the field. A global as well as local strategy encompassing governments, the commercial sector, civil society, and women themselves is needed to address gender disparity in agriculture. Human rights development, poverty reduction, and decarbonisation can all result from promoting gender parity in agriculture.

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A STUDY ON USER'S SATISFACTION ABOUT DIGITAL FINANCE IN CENTRAL CHENNAI

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Abstract

Digital finance is the term used to describe the impact of new technologies on the financial service industry. Digital innovation is a testing ground for new ideas on a smaller scale, providing immediate value and learning opportunities. A company might innovate by developing a new mobile application to improve customer engagement utilizing big data analytics to gain insights into market trends. Digital finance is the term used to describe the impact of new technologies on the financial service industry. This study explains about the user's satisfaction about digital finance in central Chennai, through this study the researcher wants to analyse the satisfaction level of the users and benefits, drawbacks, challenges, opportunities, innovations and factors influenced in digital finance. This research paper is based on empirical study in nature. The researcher collects 50 samples as a primary data to make the research more effective and reliable.

Keywords: *Innovations, finance, challenge, opportunity, digital, mobile, transaction, business.*

Introduction

Digital Finance can be defined as the financial services provided by using digital infrastructures such as mobiles and the Internet. The modern era of digital finance began in the 1990s with the introduction of online payment systems such as PayPal and the launch of online brokerages such as E-Trade. In this current

scenario, many banks have arrived with new banking technology that took place in the new scenario of banking customer that is called 'Digital finance'. Digital finance is a financial service delivered through mobile phones, personal computer, the internet or cards linked to a reliable digital payment system. It negates the reliance and usage of cash and other traditional

bank branches. Digital Finance allows individual and business to make seamless transactions across all part of the country. Block chain allows crypto assets to be transferred quickly and securely. Block chain – based protocol can be automated and decentralized, thus enabling the creation of crypto assets without the need for controlling, supervisory or centralized bodies, less fraud, financing of terrorism and money laundering block chain creates an un alterable record of transaction with end to end encryption to shut out fraud and unauthorized activity.

Latest innovation in digital finance

- Artificial intelligence
- Social network
- Embedded finance
- Robotic process Automation
- Big data
- Advanced cyber security
- Open banking

Benefits of digital finance

- ✓ Access to real – time information
- ✓ Better decision making
- ✓ Freedom
- ✓ Ease and efficiency
- ✓ Flexibility
- ✓ Transparency of information
- ✓ Mobile working
- ✓ Integration of financial management into other business operations

Problem of Digital Finance Users

The main problem of digital finance is transferring finance in retail selling, digital payment cannot support in retail purchasing too. Many users are not aware of new technology to transact finance due to illiterate, no standard employability and low income. The main problem faced by

the user was poor financial status. The legacy system integrated with new technology can be costly and time consuming even lack of security in transferring payments, cyber theft Along with it, there are some other challenges, like infrastructure cost and technological innovation.

Factors influences in Digital Finance

- ❖ Name
- ❖ Age
- ❖ Gender
- ❖ Income
- ❖ Employment status

Need and Important of the Study

In the current scenario, Most of the transactions transfer through online and digital mode. So, people have to aware about this transaction and utilise carefully, everywhere it is there in the pros and cons, and also the young generation like to use this technology but due to low income they could not utilise, when they complete the education, if they have proper employability then, definitely they can use it.

Review of related literature

1. Yan Shen and Yiping Huang (2016), Introduction to the special issue: Internet finance in China Internet finance, which is often referred to as “digital finance” and “Fintech”. Internet finance refers to the new business model of utilizing the Internet and information communication technologies to accomplish a wide range of financial activities, such as third-party payment, online lending, direct sales of funds, crowd funding, online insurance and banking. The Internet can significantly lower transaction costs and reduce information asymmetry, enhance the

efficiency of risk-based pricing and risk management, and expand sets of feasible transactions.

2. Huma Haider (2018), Innovative financial technologies to support livelihoods and economic outcomes, the study examined the innovative financial technologies support livelihoods of people. Access to digital technologies, in particular mobile phones, internet connectivity and biometric authentication, allows for a wider range of financial services, such as online banking, mobile phone banking, and digital credit for the unbanked. Digital financial services can be more convenient and affordable than traditional banking services, enabling low-income and poor people in developing countries to save and borrow in the formal financial system, earn a financial return and smooth their consumption.

Objectives

- ✓ To analyze the user satisfaction in digital finance.
- ✓ To identify the factors influencing in digital finance.
- ✓ To measure the relationship between digital payment with income group of the users.
- ✓ To examine the relationship between digital payment with education of the users.

Methodology

This study is based on an empirical study, both primary and secondary data used to analyse the user’s satisfaction of digital finance. The primary data was collected from the users of digital finance through a structural questionnaire method and the secondary data was collected from the journals and Google search. The

questionnaires were circulated among 50 users of digital finance.

Study Area

The study area selected by the researcher was central Chennai, which is based on the convenient of the researcher. The area consists of Ayanavaram, Aminjikarai, Maduravayal, Guindy and Egmore.

Analysis and Discussion

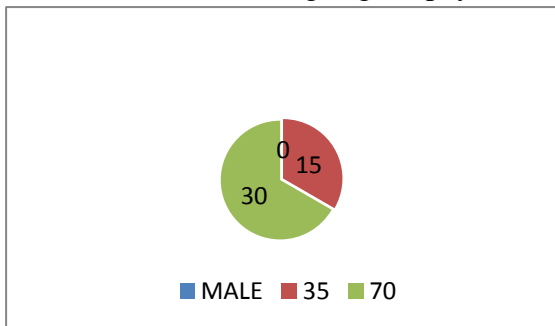
The following statistical tools were used to investigate the primary data

- ❖ Simple percentage analysis
- ❖ CHi-square analysis
- ❖ ANOVA
- ❖ Correlation

Gender	Frequency	percentage
Male	35	70
Female	15	30
Total	50	100
Age		
18-25	8	16
25-35	26	52
35-45	15	30
Above 45	1	2
Total	50	100
Educational qualification		
Upto +2	8	16
Degree	11	22
Post graduate	14	28
Professional	17	34
TOTAL	50	100
Income Group		
BELOW 10,000	9	8
10,000 – 20,000	10	20
20,000 – 30,000	2	24
ABOVE 40,000	19	38
TOTAL	50	100
Occupation Status		
House Keeper	5	10
Business	11	22
Employee	28	56
Professional	6	12
TOTAL	50	100

Table -1 show that the characteristics of the respondents and the

total number of the respondents were 50, out of which 35(70%) male and 15 (30%) females. In connection with the respondents age group, Majority 26 (52%) were in the age group of 25-35 years, followed by 15 (30%) in the age group of 35-45 years, 8 (16%) in the age group of 18-25 years, in relations with the educational qualification of the respondent, 17 (34%) were professional,14 (28%) of the respondent were post graduate and 11 (22%) of the respondent were under graduate and 8 (16%) of the respondent comes under below +2 level. Income wise, 9 (18%) of the respondent earn below 10,000 as a income, 10 (20%) of the respondent earn 10,000- 20,000 as a income, 12 (24%) of the respondents were earn 20-30,000 of income,19 (38%) of the respondents were earn above 30,000 of income. Occupation wise, 5 (10%) of the respondent doing house-keeping and low category job, 11 (22%) of the respondents were doing business, 28 (56%) of the respondents were working as a employee, 6 (12%)of the respondent were working as a professional job. As per my research, those who are earning more income and educated and those who are working as a employee they are enjoying and feel comfortable while using digital payments.



Chi – Squire test Result

Null Hypothesis H₀: There is no association between the variables of income group and approaching of digital transaction of the users in Digital finance.

Alternative Hypothesis H₁: There is association between the variables of income group and approaching of digital transaction of the users in Digital finance.

Chi – Squire test Result

Chi-Square	Df	Significance
16.276	3	0.001

Since, the “P” value 16.266 is less than the Chi-Square value of 16.276 therefore, the Hypothesis is rejected. Hence, there is significance association between income group and approaching of digital transaction of the users in Digital finance.

Hypothesis – 2 Null Hypothesis

H₀: There is no significance association between the Occupation of the users and approaching digital payments in digital finance.

Alternative Hypothesis H₁: There is significance association between the Occupations of the User’s and approaching of digital transaction in Digital finance.

Chi-Square	Df	Significance
13.816	2	0.001

Since, the “P” value 11.149 is less than the Chi-Square value of 13.816 therefore, the Hypothesis is rejected. Hence, there is significance association between the approaching of digital transaction of the users in Digital finance.

Hypothesis – 3 Null Hypothesis

H₀: There is no significance association between the educational level and approaching digital transaction in Digital finance.

Alternative Hypothesis H₁: There is association between the Educational level of the u and approaching digital transaction in Digital finance.

Chi-Square	Df	Significance
2.920	2	0.05

Since, the “P” value is 2.920 (0.05p > 0.10) less than the Chi-Square value of 2.7190

Model	Sum of Squares	Df	Mean Square	F value	Sig
Factors with the group (factors) between the groups	12.375	3	4.125	2.34	0.5
Residual Value	28.125	4	7.031	3.97	0.5
	12.375	7	12.375		
	52.875				

therefore, The Hypothesis is rejected. Hence, there is significance association between the Educational level and approaching digital transaction to in Digital finance.

Null Hypothesis H₀: There is no significance difference among the factors of digital users in digital finance.

Alternative Hypothesis H₁: There is significance difference among the factors of digital users in digital finance.

Analysis -1

Since, the ‘F’ value 4.34 is more than the calculated value of 2.34 at 0.5% level of significance, so the null hypothesis accepted. Hence, there is no significance difference among the factors of digital transaction in digital finance. The ‘p’ value lies between (0.5p > 0.25) since, there is no significance difference among the factors. So, all the factors are equally influenced in digital transaction.

Research Gap

The researcher analysed 30 empirical articles in care listed journals and it was noticed that there is no research regarding this particular field, so the researcher decided to select the research in this field.

Sample Size: The sample size was 50.

Method of Sampling: convenient sampling.

Limitations of the study

- ❖ This study is limited with only the users who transfer the finance through digital.
- ❖ Digital finance is not suitable for all the categories.
- ❖ Digital transaction is not possible for all the circumstances.
- ❖ The sample size was 50 which may not reflect the original attitude of the research.
- ❖ This study was conducted only in central Chennai.

Findings

As per my research the following points are the important findings of the study.

- ❖ Digital finance only affordable for sound financial income group of people.
- ❖ To aware about the technology of digital finance to utilise by the users.
- ❖ Education is must to get standard employability to earn income and then only it is possible to transact all the financial transaction through online, so, it is very suitable and convenient for educated people.

Suggestions

- ❖ To create awareness about new innovations in digital finance among the people.

- ❖ To Government should take the necessary steps to enhance people's income, education and standard employability to utilise the digital finance.
- ❖ Embracing open banking and investing in infrastructure can help overcome these challenges and promote the growth of digital finance.

Conclusion

This article provides sufficient information about Digital finance and its impact on financial transaction. Digital Finance plays a vital role in the day to day activities of the people. The findings of the study found that Usability, Convenience, Accurate timing, easy to transfer account facilities have the positive impacts on Digital finance. Hence the study concludes that the digital finance (Internet banking, mobile banking, mobile wallets (apps), credit card and debit card has a significant impact on financial transaction. Though digital finance has many negative on an issue like lack of technical knowledge of the users, security, adaptability etc. Every human being intends to avail the facility of digital finance in their lives. Even though, it has many draw backs.

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IMPLICATIONS OF AUDITING AND INVESTIGATIVE FORENSIC ACCOUNTING

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Abstract

Forensic accounting has become a crucial tool in situations of fraud. To undertake an assessment of a company's financial accounts, forensic accounting combines accounting, auditing, and investigative abilities. The use of forensic accounting will be able to reduce corporate governance fraud, enhancing both the corporate and non-corporate sectors' productivity. The emphasis on the accounting and financial reporting system will be helped by this. Analyzing the idea of forensic accounting, its necessity, and its contribution to the problem of fraud in corporate settings financial fraud detection is a growing field that includes forensic accounting. In India, there is a severe lack of qualified accountants who are also proficient in forensic issues. While forensic accounting focuses on fraud, traditional auditing emphasises errors. Forensic practice was not recognized as a separate accounting practice area from auditing at one time. Over the decades, auditing separated itself from fraud detection.

Keywords: *Forensic Accounting, Auditing, Corporate, Financial Frauds, Investigation.*

Introduction

In the current economic climate, forensic accounting is a crucial instrument for identifying financial crime, conducting investigations into it, and guiding the

administration of justice by offering authoritative details on the evidence discovered that is related to financial crime. Although it is a new field, banks, insurance companies, and even the police

have increased their use of forensic accountants in recent years. In the branch of accounting known as forensic accounting, fraud is investigated and financial data that can be used in court cases is analysed. To conduct investigations into financial frauds, forensic accounting is a skillful combination of accounting, auditing, and investigative skills. Legal action and analytical accounting both benefit from it.

Forensic Accounting by Hopwood, Leiner, and Young: Forensic accounting is the application of investigative and analytical skills for the purpose of resolving financial issues in a manner that meets standards required by courts of law." Forensic accountants apply special skills in accounting, auditing, finance, quantitative methods, certain areas of the law, research and investigative skills to collect, analyse and evaluate evidential matter and to interpret and communicate findings."

The discipline of accountancy that specialises in explaining engagements that arise from actual or anticipated conflicts or litigation is called forensic accounting (Zim-bel & Albretch, 2012). According to Onodi, Okafor, and Onyali (2015),

"Forensic" refers to information that is "fit for use in a court of law." According to the same theory, forensic accountants are also forensic auditors, also known as investigative auditors, who are required to provide expert testimony both before and during a trial. According to Dhar and Sarkar (2010), forensic accounting is the use of accounting principles and procedures to solve legal issues.

In a similar vein, Smith and Crumbley (2009) distinguish forensic accounting from fraud auditing to describe it. They claim that a forensic accountant may do fraud auditing services and may actually be a forensic auditor, as opposed to a fraud auditor, who is an accountant with particular skills in auditing. Singleton & Singleton (2010) assert that forensic accounting entails non-financial information collecting, fraud investigation, fraud detection, and prevention, as well as analysis of antifraud procedures.

Forensic Auditing

They assert that, in contrast to a fraud auditor, who is an accountant with specialised auditing skills, a forensic accountant may do fraud auditing services and may truly be a forensic auditor. According to Singleton & Singleton (2010), forensic accounting includes gathering non-financial information, investigating fraud, detecting and preventing fraud, as well as analysing antifraud methods. According to Hopwood, Leiner, and Young (2013), the practise of employing analytical and investigative skills to settle financial disputes in line with the standards required by courts is known as "forensic accounting." You could respond by saying that although forensic accounting does not specifically address fraud, fraud assessments are a crucial part of the discipline.

Objectives of Forensic Audit

The objectives of forensic audit will help us to under-stand the role of forensic auditor and its impact on corporate governance. These objectives are;

- To increase managerial responsibility.
- To enhance statutory auditing and corporate governance.
- To enhance the mechanism for financial reporting.
- Assist with spotting financial fraud.
- Promote greater auditor independence
- Giving audit committees greater assurance.

Due to the fact that a different group of auditors (forensic auditors) will be closely scrutinising their performance, financial statement auditors bear a greater duty for the detection of fraud and criminal activity when reviewing financial statements. It is conceivable that forensic audits could provide the audit committees with a tool to help them assess the calibre of the financial statements that the external auditor has audited. Since the forensic auditor is expected to go above and beyond the normal audit to look for fraud and investigate further using more advanced scientific analytical tools and software packages to detect fraudulent activities committed by the management and their employees or fraud that the external auditor may have possibly conspired with the management to cover up, it can be said that the aforementioned objectives have a stronger impact on corporate governance.

Audit and Investigations

The forensic auditor and team will prepare their investigation during the planning stage to accomplish goals including figuring out what fraud, if any, is being carried out and when it occurred.

Finding out how the fraud was covered up

- ❖ Identifying the crime's perpetrators

- ❖ Calculating the loss caused by the fraud
- ❖ Gathering pertinent evidence that can be used in court and suggesting steps to stop similar frauds from happening in the future.

In order to evaluate, interpret, summarise, and explain complicated financial and business-related concerns in a way that is both understandable and appropriately supported, it is common practise to hire a forensic auditor. Insurance firms, banks, police departments, public entities, and other businesses may hire forensic auditors or engage them in private practise. As a forensic auditor, a company secretary plays the following role:

Investigations into crimes

A company secretary would review the documentation and any available information using their investigative accounting abilities to provide their expert opinion on the situation. Additionally, for investigation purposes, government agencies such as the Revenue Commissioners and others can need their assistance. The police may request the assistance of practising forensic accountants in their criminal investigations, which relate to individuals or corporate bodies.

Personal Injury Claims

When losses come from personal injury, insurance firms occasionally consult forensic auditors for an expert opinion before determining if the claim is valid and how much to pay.

Fraud Investigations

The assistance of a company secretary may be required in business

investigations that involve due diligence checks, asset identification and recovery, forensic intelligence gathering, and funds tracing. The forensic auditors will be required to provide their professional judgement regarding the type, scope, and person or people most likely to have committed the fraud in situations involving employee fraud. The forensic expert carefully examines the documented evidence that is available before forming a judgement based on the data gleaned during the course of that review.

Investigation and Inspection

The company secretary could assist the police, the ACB, and other investigating authorities in gathering information for their investigations. Section 157 of the Criminal Procedure Code from 1973, Sections 17 and 18 of the Prevention of Corruption Act from 1988, Section 6 of the Bankers Books Evidence Act from 1891, Section 78 of the Information Technology Act from 2000, and Section 447 of the Companies Act from 2013 all state that the Court or Police may need the expertise of forensic auditors when inspecting any books that are connected to the accounts of an accused.

Expert Opinion

Firm Secretaries look over the finances and balance sheets thoroughly and use their expertise to determine whether fraud has been perpetrated or whether there is any abnormality connected to it. For eg., this finds place in section 45, section 118 of Indian Evidence Act, 1872; section 293 of Cr. P.C, 1973.

Professional Negligence

In a case involving professional negligence, the forensic auditor may be

contacted to determine whether professional negligence occurred and to estimate the loss brought on by the negligence. Any professional and their client could have a conflict of this nature. The expert could be a lawyer, accountant, corporate secretary, etc. The forensic expert performs the services necessary for this task using his or her investigative abilities.

Expert Witness Cases

Forensic auditors and company secretaries frequently appear in court to provide expert testimony in civil and criminal court hearings. In these situations, they appear to provide investigation evidence to the court to aid the presiding judge in making a decision about the case's result.

Meditation and Arbitration

Some forensic auditors have expanded their forensic auditing practises to include providing Alternative Dispute Resolution (ADR) services because of the specialised training they would have received in legal mediation and arbitration. Without these services, a matter could be expensive and time-consuming for people or businesses involved in commercial disputes with a third party.

Litigation Consultancy

Company secretaries are qualified to participate in litigation and provide support with assembling the necessary facts, arguments, and defences

Computer Forensics

A company secretary has received training in helping with electronic data recovery, IP rights enforcement, etc.

Competences Required of A Forensic Accountant

Curiosity, persistence, originality, discretion, organisation, self-assurance, and excellent professional judgement are necessary for an expert in forensics to be deemed competent and effective. A forensic accountant needs to be open to all possibilities, examine the small print, and simultaneously understand the big picture. A forensic accountant also needs to be able to speak and listen clearly and succinctly. Additionally, in addition to the qualifications above, forensic accountants, auditors, and investigators must possess some complimentary talents. Deductive analysis, creative thinking, unstructured problem solving, investigative flexibility, analytical proficiency, oral and written communication, written and oral communication, specific legal knowledge, and composure are all necessary.

The Role of the Forensic Accountant

As an expert witness, a forensic accountant's main responsibility is to evaluate, interpret, synthesise, and explain intricate business and financial transactions in a clear, fact-based manner. An expert witness is a witness who is thought to have expertise in a particular topic beyond that of the typical individual, sufficient for others to formally depend upon, due to education, training, skill, or experience. As a tool to aid the fact-finder, the witness's specialised (scientific, technical, or other) opinion about a piece of evidence or a fact that falls within the purview of their knowledge is referred to as an expert opinion (Hopwood, Leiner & Young, 2013). Additionally, expert witnesses may present expert testimony regarding facts related to their area of

competence. Sometimes, to the harm of their reputations, their evidence may be refuted with a learned treatise. In order to investigate and evaluate financial data, a forensic accountant must (a) do so; (b) if necessary, they must also design computerised applications to aid in the study and presentation of the data.

- Communicate findings in the form of a report with supporting documents.
- Assist in any legal proceedings.
- Review of the relevant documents in order to form an initial assessment of the case and identify areas of loss.
- Assist with examination for discovery which is including the formulation of questions to be asked regarding the financial evidence.
- Attend the examination for discovery in order to review the testimony, and assist with understanding the financial issues to formulate additional questions to be asked.
- Review of the opposing expert's damages report and reporting on both the strengths and weaknesses of the positions taken.

Conclusion

To sum up the field of forensic accounting is an intriguing one, and both society and the investigator can benefit greatly from it. However, it is important to emphasise that only individuals with these abilities, courage, and knowledge of concealment can succeed in the process of forensic inquiry. There are more opportunities for fraud to occur as computer use in accounting and auditing increases. Furthermore, a forensic accountant who is just knowledgeable about conventional accounting methods is

not appropriate. A forensic accountant needs to be knowledgeable in many different fields. Auditing, accounting, statistics, information technology, legal regulations, and human skills are some of these cross-disciplinary fields. The forensic accounting curriculum should also contain sections on big data education as good forensic accountant essentially needs the knowledge on big data.

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EFFECTIVENESS OF BONUS SHARES PERFORMANCE ON SELECTED OIL AND PETROLEUM INDUSTRIES

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Abstract

In the world of growing economy and competition, if companies want to gain competitive advantage, they would go in for diversification or an integration of their existing business. This process would require additional capital being brought into the business. The companies may raise the required capital through issue of shares either through rights issue. To increase the reputation of the company among existing shareholders and as a means of sharing their profit, companies may go in for issue of bonus shares to the existing shareholders. Such issues would bring out impact on return of the company and market in several ways. An attempt has been made in this study, to analyze the behavior of the share prices in the Indian equity market towards the announcements of bonus issue, taking into account the price movements of the Nifty Index stocks that has announced its bonus issue, and to find out the impact of the price behavior by comparing the stock performance with the performance of the market index.

Keywords: existing Business, Oil and Petroleum Company, Bonus Shares, stock returns

Introduction

It is observed from the study that the scrip's in the Nifty Index having higher bonus ratio witness a positive impact and perform better than the market Index. But at the same time if the bonus issue is smaller in size, it fails to attract the investors and hence delivers a negative impact. The research study has also proved that the performance of hat scrip's having

lesser bonus ratio is underperforming compared to the market performance.

In this paper, we analyses market reaction surrounding announcement and ex-bonus days in post global financial crisis era in Indian markets. Our results show that bonus announcement leads to some buzz in the market and it reacts positively to such announcements. If, market is efficient in its semi-strong form,

such positive reaction associated with bonus announcement should be restricted on announcement day only, however, we can see that market gets some hint of such potential announcement at least two days before but the biggest positive market reaction is observed on announcement day itself and not on any of the following day in the announcement window. That indicates that bonus announcement do carry positive information content and that is getting reflected just before and immediately on its announcement and that provides support for information content and some evidence of Indian stock market is efficient in its semi-strong form.

Identified Problems

Investors would be in confusion in investing their funds in a particular stock because of publicly available information like bonus issues, stock splits etc.. Most of the investors feel that once the bonus is issued they may get the profit and market is in good condition.

Need For the Study

- ✓ To find out how do companies diversify their existing Business
- ✓ To study on how additional capital is bought into the Oil and Petroleum company
- ✓ If it is through corporate action of Bonus Shares, what is the Issue proportion they will announce.
- ✓ How does the corporate action event of Bonus Issue have an impact on stock returns?
- ✓ To analyze how do the companies' scripts perform in the market on such announcements.

Objectives of the Study

Primary Objective

To study about the effectiveness of corporate action event of Bonus Share announcements of Oil and Petroleum industries/Firms.

Secondary Objectives

- To study the impact of firm-specific factors on market returns before and after the specified event with reference to selected scripts.
- To determine the pre and post reaction of the market related factors with reference to selected scripts.
- To identify the Volatility of stock returns of selected scripts before and after the event announcement.

Scope of the Study

The scope of study is to analyze the Bonus and Rights Issues trends and its impact on Abnormal Returns on share prices for last 5 years from 2016- 2020. The study will be useful for identify the variables which are affecting the Returns and identify the share price fluctuations based on Bonus and Rights Issues. Such analysis should be conducted in order to determine share price fluctuations in the market.

Limitations of the Study

- The period of the study is only 5 years. If it is increased, the study could be more effective and keen in its results.
- The advanced tools could also be used for the better output.
- If the event window is been increased, it may be more keen in its result.

Review of Literature

Corporate Actions and Impact on Stock Markets Prices - An Empirical Study of Indian Markets: The purpose of this study was to analyze the impact of announcement of corporate actions of

Stock Split, Consolidation and Share buyback on the traded volumes of the shares on the stock exchanges. This study concluded that corporate actions are having significant impact on the market price of stocks.

This study explores the impact of right shares issued by Indian companies that took place during 2005 & 2010. The samples of 32 right issues have been used to study the announcement effect. The study examines the stock price reaction to information content of right issues with a view of finding whether Indian stock market is semi-strong efficient or not. The standard event study methodology has been used for the purpose of examining the right issue announcement reaction. The study reveals statistically significant abnormal returns on the announcement & surrounding dates.

Methodology of the Study

This study is primarily Analytical and Empirical in nature. Analytical research is used for analyzing the secondary data for the study. In this study, hypothesis is tested and hence it is empirical in nature. Target Companies: The Study is based on the sample drawn the Oil and Petroleum Industries/Firms who has issued Bonus Share in the recent 5 Years (2017 – 2018 to 2020 - 2021).

Tools for Analysis

In statistics, linear regression is a linear approach to modeling the relationship between a scalar response (or dependent variable) and one or more explanatory variables (or independent variables). The case of one explanatory variable is called simple linear regression.

This term is distinct from multivariate linear regression, where multiple correlated dependent variables are predicted, rather than a single scalar variable. The most commonly used form of regression is linear regression. It uses the values from an existing data set consisting of measurements of the values of two variables, X and Y, to develop a model that is useful for predicting the value of the dependent variable, Y for given values of X.

Person Correlation Analysis –

In statistics, the Pearson correlation coefficient also referred to as Pearson's r , the Pearson product-moment correlation coefficient the bivariate correlation, is a measure of the linear correlation between two variables X and Y. According to the Cauchy–Schwarz inequality it has a value between +1 and -1, where 1 is total positive linear correlation, 0 is no linear correlation, and -1 is total negative linear correlation. It is widely used in the sciences. It was developed by Karl Pearson from a related idea introduced by Francis Galton in the 1880s and for which the mathematical formula was derived and published by Auguste Bravais in 1844. The naming of the coefficient is thus an example of Stigler's Law. It is generally used to check whether multicollinearity exists between independent variables.

Data Analysis and Interpretation

Market Related Variables

- Cumulative Abnormal Return= $((\text{current closing price} - \text{previous closing price}) / \text{previous closing price}) * 100$
- Volatility of Index Return= (standard deviation of 100 days closing price)

Firm Related Factors

- Value of Collateral Assets=Intangible assets/Total assets
- Return on equity=Profit after Tax/ Net worth
- Price-Earnings ratio
- Market Capitalization=No of shares*market price of the share
- Firm size=Log (Market capitalization)
- Debt-Equity ratio

VIR- Volatility of Index Return

Volatility of Index Return= (standard deviation of 100 days closing price)

Table showing the Bonus issued companies with Bonus ratio and their Market Related variables

COMPANY	<u>Market Related Variables</u>	
	CAR	VIR
TIDE WATER	-0.011130663	413.086705
IOC	-1.272037481	470.3472802
OIL INDIA	0.558527093	447.6835722
CASTROL OIL	-0.082500735	411.9804769
ONGC	-0.338609378	417.5963977
Panama Petrochem	1.665475754	611.0281203
Petronet LNG	1.33642532	560.2437919
GP Petroleum	-1.793378974	253.9873344
GAIL	-0.408859799	633.566979
BPCL	0.249228771	614.7218559
HPCL	1.302257877	603.1302255

CAR-Cumulative Abnormal Return

Cumulative Abnormal Return= ((current closing price- previous closing price)/ previous Closing price)*100

VIR- Volatility of Index Return

Volatility of Index Return= (standard deviation of 100 days closing price)

Table showing the Bonus issued companies with Bonus ratio and their Firm Related variables Volatility of stock Returns

Before= (Standard deviation of 100 days closing price before event announcement)

After= (Standard deviation of 100 days closing price after event announcement)

Table showing the Bonus issued companies with Bonus ratio and their Volatility related variables

COMPANY	<u>Volatility of Stock Returns</u>	
	Before	After
TIDE WATER	4542.587793	387.8572051
IOC	12.79705054	7.154244005
OIL INDIA	14.6343713	10.2409665
CASTROL OIL	15.11902981	9.722519561
ONGC	24.52164568	20.63136163
Panama Petrochem	6.132169088	14.13866746
Petronet LNG	40.94696674	20.18218899
GP Petroleum	2.718046684	1.996678808
GAIL	35.08126166	18.64525151
BPCL	50.48376612	20.4602227
HPCL	36.72824869	30.93928551

Volatility of stock Returns

Before= (Standard deviation of 100 days closing price before event announcement)

After= (Standard deviation of 100 days closing price after event announcement)

Pearson Correlation Analysis

It is generally used to check whether multi co linearity exists between independent variables.

Table showing the relationship between all independent variables

Correlations										
	CAR	VIR	VCA	ROE	PE ratio	MC	Firm size	DE ratio	Volatility	
									Before	After
CAR	1	.671*	-0.116	0.209	0.596	-0.393	-0.057	0.218	-0.033	0.008
VIR	.671*	1	0.495	0.061	0.517	0.030	0.220	0.417	-0.218	-0.175
VCA	-0.116	0.495	1	-0.097	0.030	0.060	0.078	0.157	-0.158	-0.140
ROE	0.209	0.061	-0.097	1	0.555	0.067	0.378	0.409	0.176	0.184
PE ratio	0.596	0.517	0.030	0.555	1	0.025	0.501	0.138	0.307	0.335
MC	-0.393	0.030	0.060	0.067	0.025	1	.697*	0.446	-0.149	-0.169
Firm size	-0.057	0.220	0.078	0.378	0.501	.697*	1	0.554	-0.115	-0.108
DE ratio	0.218	0.417	0.157	0.409	0.138	0.446	0.554	1	-0.248	-0.222
Before	-0.033	-0.218	-0.158	0.176	0.307	-0.149	-0.115	-0.248	1	.998**
After	0.008	-0.175	-0.140	0.184	0.335	-0.169	-0.108	-0.222	.998**	1

Interpretation

From the above Table, it can be interpreted that, the values of correlation coefficient is negative or negligible for almost all the variables. It can be observed that if value is negative it proves that there exists no dependent relationship between independent variables. Hence there exists no multicollinearity between any of the independent variables. The test is statically significant and the significant level of this test is 1%.

Where there are a few positive values for correlation coefficient meaning some variation in the independent variable, Regression can be used to test the exact impact of the dependent variables on independent variables.

Regression

The most commonly used form of regression is linear regression. Linear regression uses the values from an existing data set consisting of measurements of the values of two variables, X and Y, to develop a model that is useful for predicting the value of the dependent variable, Y for given values of X.

Elements of a Regression Equation

The regression equation is written as $Y = a + bX + e$

- ❖ Y is the value of the Dependent variable (Y), what is being predicted or explained
- ❖ a or Alpha, a constant; equals the value of Y when the value of X=0
- ❖ b or Beta, the coefficient of X; the slope of the regression line; how much Y changes for each one-unit change in X.
- ❖ X is the value of the Independent variable (X), what is predicting or explaining the value of Y
 - ❖ e is the error term; the error in predicting the value of Y, given the value of X.

Hypothesis

Ho: The independent variables are not good enough to predict the value of dependent variable.

H1: The independent variables are good enough to predict the value of dependent variable

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.998 ^a	0.996	0.961	0.213185639

Predictors: (Constant), After, Firm size, VCA, ROE, VIR, DE ratio, MC, PE ratio, Before, After

From model summary, it can be interpreted that the value of R2 being 0.996, the independent variables chosen contribute almost 99.6% to the study. Thus, there are other variables that influence around 0.4% to the study. The reliability of regression can be extended by including those variables that influence the dependent variable to a greater extent.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.575	9	1.286	28.299	.145 ^b
	Residual	0.045	1	0.045		
	Total	11.621	10			

Dependent Variable: CAR
 Predictors: (Constant), After, Firm size, VCA, ROE, VIR, DE ratio, MC, PE ratio, Before

From ANOVA, it can be seen that the significance value is 0.145, which is far higher than 0.05, and hence the null hypothesis is accepted which means the independent variables are not good enough to predict the value of dependent variable, Cumulative Abnormal Return.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.855	2.982		3.64	0.171
	VIR	0	0.002	-0.028	-0.137	0.913
	VCA	-64.02	25.181	-0.237	-2.542	0.239
	ROE	-3.674	0.939	-0.624	-3.913	0.159
	PE ratio	0.068	0.013	1.521	5.351	0.118
	MC	-7.69E-13	0	-0.393	-2.828	0.216
	Firm size	-0.961	0.22	-0.855	-4.365	0.143
	DE ratio	3.734	0.776	1.018	4.814	0.13
	Before	0.004	0.002	5.122	2.17	0.275
	After	-0.052	0.023	-5.47	-2.306	0.26

Dependent Variable: CAR

As seen in Coefficients, the significance value is greater than 0.05, for all the variables, thus the test may not be reliable at 95% confidence level to predict the value of dependent variable, Cumulative Abnormal Return of Market

Index. Here positive coefficient implies that to what extent dependent variable is expected to increase and in case of negative coefficient it indicates vice versa.

Findings, solution and conclusion

Findings

- The study of Bonus Issue announcement does not have much impact on stock returns of those scripts selected for study. The event related factors considered for study included bonus issue ratio as well as firm specific factors which include Value of collateral Asset, Return On Equity, PE ratio and Market Capital does not influence the stock returns of those scripts that were studied.

Suggestions

The variables considered covered a time period of just five years. If the study is done for an extended time period, still finer details of the impact of variables on abnormal returns could be studied.

A detailed study demands inclusion of more event related and market related factors influencing the stock returns, as well as some of the macroeconomic factors including tax rates, inflation rates and other political factors that could bring out the influence the volatility of stock prices and stock returns.

Conclusion

This study focused on the impact of bonus and rights issues announcement over the market returns and individual returns. The study covered for a period of five years and this has brought out some of the very important conclusions that the firms must consider other variables like Macro economic factors, bank rates with bonus issues and rights issues. Though multi collinearity didn't exists between the

variables, regression shows that the variables chosen may not fully explain the effect over the dependent variable called Cumulative Abnormal Returns. This could be extended for a larger time period, considering more number of firms and the related variables that influence the announcement of bonus and rights issue. The study with sufficient evidences finally concludes that the stock returns are not much influenced by the event & firm related and market condition & industry-related factors.

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BRANDING THROUGH CORPORATE SOCIAL RESPONSIBILITY (CSR) IN INDIA: MITIGATING NATURAL DISASTER IMPACTS THROUGH CORPORATE INITIATIVES

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Abstract

Branding through Corporate Social Responsibility (CSR) in India extends beyond business objectives, encompassing a vital role in addressing natural disaster impacts. This paper explores how CSR initiatives serve as strategic tools for companies to mitigate the adverse effects of calamities. Analyzing the nexus between CSR, branding, and disaster resilience, it investigates the motives, strategies, and outcomes of corporate involvement. Insights gleaned contribute to enhancing CSR practices, fostering brand reputation, and aiding disaster-affected communities in India.

Keywords: CSR, natural calamities, brand awareness, cyclone, corporate initiatives

Introduction

Despite the abundance and unpredictability of nature, its destructive force acts as a universal equalizer, affecting all sectors and regions with varied intensity. India, due to its distinctive geo-climatic conditions, faces perennial vulnerability to an array of geophysical and hydro-meteorological hazards. These

recurring natural calamities disrupt millions of lives, causing substantial loss of life, property, and livelihoods across the country. The corporate sector, particularly in the wake of catastrophic events such as the 1999 Orissa super-cyclone and the 2001 Bhuj earthquake in Gujarat, has historically played a pivotal role in post-disaster relief, rehabilitation, and

reconstruction efforts across affected regions. In India, entities like the Confederation of Indian Industry (CII), the Federation of Indian Chambers of Commerce and Industry (FICCI), alongside other industry-specific associations, have been instrumental in extending critical aid to affected communities, alleviating their distress. Corporate Social Responsibility (CSR) has become deeply ingrained in the corporate ethos, permeating every facet of the sector's operations. Corporations consistently seek avenues to enhance their brand value and market presence. In this context, CSR emerges as an astute business strategy—a tool that not only benefits society but also yields substantial business returns.

The corporate sector, as an indispensable part of society, bears the responsibility of fostering sustainable development and integrating social and environmental concerns into its business framework and engagements with stakeholders. By aligning with CSR principles, corporations not only fortify their own resilience against natural disasters but also play a pivotal role in reducing the community's vulnerability to such calamities. This integration of CSR practices into corporate initiatives not only serves as a branding strategy but also stands as a testament to the sector's commitment to mitigating the impacts of natural disasters while bolstering its own standing within the community.

Aims of the study

- ❖ Investigate the underlying motives and drivers compelling corporations in India to engage in CSR initiatives

specifically focused on mitigating natural disaster impacts.

- ❖ Access and analyze the diverse CSR strategies implemented by corporations in India to address disaster preparedness, response, recovery, and long-term resilience-building within affected communities.
- ❖ Measure and evaluate the tangible impacts and outcomes of CSR initiatives undertaken by corporations, examining their effectiveness in reducing vulnerability, enhancing community resilience, and fostering sustainable development in disaster-prone regions.
- ❖ Explore the correlation between CSR activities related to natural disasters and their influence on corporate branding, reputation, and consumer perceptions in the Indian market.
- ❖ Gather insights from diverse stakeholders including corporations, NGOs, government agencies, and affected communities to understand their perceptions, expectations, and experiences regarding CSR initiatives aimed at mitigating natural disaster impacts.
- ❖ Propose actionable recommendations for corporations, policymakers, and stakeholders to optimize CSR practices, foster better collaboration, and maximize the positive impact of corporate initiatives in addressing natural disasters while enhancing brand value and societal well-being in India.

Review of literature

Several scholars have emphasized the symbiotic relationship between CSR initiatives and brand image enhancement.

Research by Maignan and Ferrell (2004) highlighted that strategic CSR activities positively impact consumer perceptions, fostering brand loyalty and competitive advantage. Kotler and Lee (2005) further suggested that CSR initiatives aligned with a company's core values not only enhance brand reputation but also attract stakeholders, including consumers and investors.

Studies on CSR and disaster management underscore the critical role corporations play in responding to natural disasters. Mishra and Suar (2010) noted that CSR initiatives in disaster-prone areas positively influence stakeholder trust and loyalty. Gupta and Sharma (2020) specifically examined CSR practices in the Indian context, noting a growing trend of companies integrating disaster management into their CSR agendas.

There is an exclusive handbook under the GOI-UNDP Disaster risk management programme which is about the role of corporate sector in disaster management. This gives a outline of the correlation between CSR and disaster management using various disaster cases in India.

Also, Repaul Kanji and Rajat agrawal explored the use of CSR in building disaster resilience through sustainable development in India. The literature demonstrates a strong correlation between CSR initiatives, brand image enhancement, and disaster management. However, while there's recognition of the potential impact of CSR in mitigating natural disaster impacts in India, there's a need for further exploration into the specific strategies, challenges, and

outcomes of CSR initiatives tailored to address these challenges. This research aims to contribute to this gap by analyzing and evaluating the effectiveness of CSR initiatives in branding and mitigating natural disaster impacts in the Indian context.

Methodology

The qualitative research paper aims to explore and elucidate the multifaceted dimensions of corporate branding strategies through Corporate Social Responsibility (CSR) initiatives amidst natural disasters in India. It seeks to uncover the intricate interplay between CSR efforts and branding; delving into how corporations strategically leverage their CSR activities to not only contribute to disaster relief and resilience-building but also enhance their brand image and reputation. The research design for this study involves the content analysis on documents and literature related to the CSR during natural calamities. The study uses the secondary data. Secondary data will be collected from websites, project reports, government documents, books, sustainability reports and literature reviews. The secondary data collected from the website, project reports, literature review, sustainability reports and government documents will be analysed using content analysis.

Thematic analysis will be employed to identify recurring patterns, themes, and narratives within the qualitative data collected. This methodological approach allows for the extraction of rich and nuanced insights, enabling a deeper understanding of how CSR initiatives influence branding

strategies, stakeholder perceptions, and the overall societal impact of corporate involvement in disaster mitigation efforts. The triangulation of data sources and the iterative nature of thematic analysis will facilitate a robust exploration of the complexities inherent in branding through CSR amidst natural disasters in the Indian context, offering valuable insights for both academia and practical application in the realms of corporate strategy and social responsibility.

Strategic Framework of CSR Initiatives for Disaster Resilience

➤ Pre-Disaster Phase-

In the pre-disaster phase, proactive measures are taken to assess risks, formulate policies, and strategize preparedness efforts. The foundation of effective disaster resilience begins with a comprehensive risk assessment tailored to the region and industry. This involves identifying potential hazards, assessing vulnerabilities in infrastructure, communities, and supply chains, and evaluating the potential impact of disasters. Companies employ various methodologies, including historical data analysis, scenario planning, and risk modeling, to identify and prioritize risks. Moreover, proactive preparedness involves investing in and implementing early warning systems. This includes technological advancements, such as sensors and monitoring tools, to detect potential disasters (like floods, earthquakes, or cyclones) early on, allowing for timely evacuation plans and resource mobilization. By understanding the risks and having early warning mechanisms in place, corporations can

significantly mitigate potential damages and losses.

The formulation of robust CSR policies dedicated to disaster preparedness, response, and recovery is crucial. Companies integrate disaster management considerations into their overall corporate strategy, aligning CSR objectives with business goals. This involves establishing clear protocols, guidelines, and frameworks that outline the roles, responsibilities, and actions to be taken by the organization in the event of a disaster. Strategic planning within the pre-disaster phase involves scenario-based modeling and simulation exercises. Through these exercises, corporations simulate various disaster scenarios, enabling them to refine response protocols, optimize resource allocation, and strengthen coordination with relevant stakeholders. The integration of disaster resilience into the company's core values and operations ensures a proactive approach to mitigating risks and demonstrates a commitment to social responsibility.

➤ During Disaster Phase-

During the immediate aftermath of a natural disaster, effective and rapid response becomes imperative to mitigate the impact on affected communities. Corporations need to swiftly deploy resources and collaborate with various stakeholders to ensure timely support. This phase involves a dual focus on ensuring the safety and well-being of both employees and affected communities.

Post-Disaster Phase-

Following the immediate response, the post-disaster phase concentrates on extensive efforts aimed at rehabilitation

and recovery. This phase involves substantial investment and commitment from corporations towards rebuilding infrastructure and reinstating essential services disrupted by the disaster. It encompasses a multifaceted approach, encompassing the restoration of physical infrastructure such as housing, roads, and utilities, along with the revival of community services like healthcare and education. The focus here is not merely on returning to pre-disaster conditions but on enhancing resilience against future calamities by implementing more robust and sustainable infrastructure.

Amidst the restoration of physical structures, special attention is directed towards supporting affected livelihoods. Corporations play a pivotal role in initiating and supporting programs that aid in the revival of local businesses, offering vocational training, and facilitating income generation activities. This is crucial for the economic recovery of affected individuals and communities, fostering self-sufficiency and reducing dependency on external aid in the long term. Beyond immediate recovery, post-disaster CSR initiatives shift focus towards ensuring long-term resilience within the affected regions. This involves strategic planning to foster sustainable development practices that enhance resilience against future disasters. Educational programs and training workshops are integral components, imparting knowledge and skills to communities on disaster preparedness, risk mitigation, and sustainable practices.

Effects of Post-Disaster CSR Engagement on Brand Reputation:

Effects of Corporate Social Responsibility (CSR) initiatives on the brand reputation and image of participating companies post-engagement in disaster relief and recovery efforts is investigated and both tangible and intangible outcomes are analyzed. Tangible effects encompass measurable outcomes, such as increased consumer trust, positive media coverage, and stakeholder acknowledgment, all contributing to a bolstered brand image. These initiatives often result in enhanced brand visibility, evident through market recognition and potential expansion opportunities due to the positive associations forged with the CSR efforts. Quantifiable metrics like improved sales or customer loyalty serve as tangible indicators of the impact of these initiatives on brand reputation. Conversely, intangible effects manifest in the form of strengthened consumer perception, loyalty, and emotional connections. Companies engaging in post-disaster CSR initiatives often evoke a sense of empathy and goodwill among consumers, nurturing a favorable emotional bond that transcends mere product or service satisfaction. The intangible effects resonate deeply within consumer consciousness, fostering a sense of pride and allegiance to the brand, translating into long-term loyalty and advocacy.

Policy Implications

The research underscores the importance of aligning government policies with CSR initiatives for disaster mitigation. Policymakers should encourage and incentivize corporations to engage in disaster relief and recovery efforts through

regulatory frameworks that recognize and reward responsible corporate behavior. Tax benefits, certifications, or specific mandates that prioritize CSR involvement in disaster management could be pivotal. Policymakers should facilitate collaborations between corporations, governmental bodies, NGOs, and local communities. Creating platforms for knowledge sharing, joint planning, and resource allocation can optimize the impact of CSR initiatives. Encouraging public-private partnerships can amplify the reach and effectiveness of disaster relief efforts, fostering a more comprehensive and coordinated response. Implementing transparent reporting standards for CSR activities, particularly those related to disaster relief, is crucial. Policy guidelines mandating comprehensive reporting on the allocation of funds, the nature of initiatives, and their outcomes can enhance accountability and credibility. This transparency ensures that CSR efforts are directed effectively towards disaster resilience and recovery.

Policymakers should emphasize the importance of capacity building and training programs. By incorporating disaster preparedness education into school curriculums and offering specialized training to corporate employees, communities, and local authorities, the nation can enhance its overall resilience to natural disasters. Encouraging corporations to invest in such programs through CSR initiatives could yield substantial long-term benefits. Encouraging innovation and technology adoption in disaster management should be a priority. Policymakers can offer incentives for

corporations investing in research and development of innovative solutions for disaster resilience. This includes leveraging technology for early warning systems, efficient relief distribution, and sustainable infrastructure development. Fostering a culture of long-term sustainability planning is imperative. Policymakers can promote the integration of sustainability practices in disaster recovery plans. This involves incentivizing CSR initiatives that focus on sustainable infrastructure, eco-friendly reconstruction, and community resilience-building, ensuring a more resilient future against natural disasters.

Way Forward for Future Studies

Future research could delve deeper into understanding how companies maintain their CSR initiatives beyond the immediate aftermath of natural disasters. Exploring the sustained engagement of corporations post-easing of disaster impacts would shed light on the strategies employed to ensure continuous support to affected communities. Future studies could focus on conducting longitudinal analyses to evaluate the enduring impact of CSR activities on the brand image of participating companies. Additionally, exploring the correlation between CSR initiatives and long-term financial gains would provide valuable insights into the tangible benefits reaped by companies investing in CSR.

Conclusion

The synergy between Corporate Social Responsibility (CSR) and branding strategies in addressing natural disaster impacts in India epitomizes the transformative potential of responsible

corporate engagement. Throughout this research, it became evident that CSR initiatives wield a profound influence not only on disaster-affected communities but also on the brand reputation and image of participating companies. From the investigation into the tangible and intangible effects of post-disaster CSR engagement, it is clear that corporations play a pivotal role in alleviating the aftermath of natural calamities. As India navigates the challenges posed by natural disasters, corporations wielding the tools of CSR and branding strategies stand poised to effect meaningful change. The culmination of this research underscores the symbiotic relationship between responsible corporate citizenship, brand elevation, and societal impact, emphasizing the potential for corporations to be catalysts for positive change in India's disaster-resilient future.

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THE SILENT WAR: CYBER ESPIONAGE IN THE 21ST CENTURY

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Abstract

Espionage, an age-old practice, evolves in the digital age, leading to cyber espionage. This paper explores its historical roots, emphasizing technological transformations. Since the late '90s, cyber espionage poses a formidable security challenge, utilized by major actors like the U.S., China, Russia, Iran, and North Korea. The study delves into historical roots, contemporary landscape, motives, impacts, and key players, underscoring the imperative for international cooperation and robust cyber security measures to counter evolving challenges. Today, cyber espionage stands as a potent tool wielded by nation-state threat actors, posing a critical security issue for organizations. Incidents of state-sponsored hacking, corporate espionage, and intellectual property theft have become rampant and widespread with implications extending across political, economic, and societal domains.

Keywords: *Digital Espionage, Covert Tactics, Global Cyber security, Cyber Threats, Digital warfare.*

Introduction

“Dark Side of Cyberspace is a metaphor and conceptual framework defining a virtual environmental realm that

includes all criminal, deviant, deceptive, harmful and malevolent activities in the abstract universe of cyberspace.”Cyber espionage or cyber spying is a form of

unauthorized cyberattack aimed at accessing confidential data or intellectual property for economic, competitive, or political motives. In this type of attack, an individual or nation employs cyber techniques to clandestinely gather information from another party. Unlike traditional espionage, cyber espionage operates discreetly, leaving invisible footprints deeply embedded within servers and computer networks. The Tallinn Manual, a set of guidelines for nation-state cyber warfare published in 2013, seeks to establish definitions, procedures, and rules governing international cyber operations. According to the manual, cyber espionage is described as an act carried out clandestinely or under false pretences, utilizing cyber capabilities to gather information with the intention of communicating it to the opposing party. While many perceive cyber espionage as targeting secret information for malicious purposes, the manual's definition does not explicitly delve into the intent of the attack or specify the nature of the information stolen, it proves instrumental within the realm of international law. This definition empowers victim nations to undertake suitable countermeasures against cyber intrusions, especially considering the intricate legal and political challenges that often hinder effective defence against cyber threats. Cyber espionage attacks may be driven by monetary motives or deployed alongside military operations, cyber terrorism, or cyber warfare. **Origin and growth of Cyber Espionage**

The landscape of cyber espionage, a clandestine practice ingrained in the earliest days of internet connectivity, has

undergone significant transformations which is propelled by rapid technological advancements and evolving global dynamics. Originating in parallel with the advent of the internet, the history of cyber espionage spans back to the late 1990s and early 2000s. During this period, nations recognized the potential of the digital realm for intelligence gathering, with events like Moonlight Maze and Titan Rain offering early insights into the future of state-sponsored hacking. The modus operandi of Cyber-Espionage threat actors involves gaining unauthorized access, maintaining a low profile, and compromising sensitive assets and data. Enabled by technology, these espionage actors operate swiftly, efficiently, and with evasive techniques that make attribution challenging. The genesis of cyber espionage can be traced back to the 1980s when the French intelligence agency, leveraging the "Farewell Dossier," exploited a KGB officer's computer for critical intelligence. Simultaneously, the Chaos Computer Club, a German hacker group, exposed vulnerabilities in government and military systems, marking the inception of digital espionage. **Target Assets of Cyber Espionage**

Cyber espionage strategically centres on influencing geopolitics and illicitly acquiring state and trade secrets, intellectual property rights, and proprietary information in crucial sectors. It involves the collaboration of actors from various domains, including the economy, industry, foreign intelligence services, and affiliated entities. Notably, a recent report highlighted that 71% of organizations treat cyber espionage and related threats as a

'black box,' indicating ongoing efforts to comprehend and counteract them. Primary targets of cyber espionage encompass large corporations, government agencies, academic institutions, think tanks, and other entities possessing valuable IP and technical data, which could confer a competitive advantage to other organizations or governments. Individuals, including prominent political leaders, government officials, business executives, and celebrities, are also susceptible to targeted campaigns.

Cyber spies commonly seek to access the following assets:

- Research & Development data and activity
- Academic research data
- Intellectual Property (IP), such as product formulas or blueprints
- Salaries, bonus structures, and other sensitive financial information
- Client or customer lists and payment structures
- Business goals, strategic plans, and marketing tactics
- Military intelligence
- Other proprietary information in strategic fields
- Think tanks or other organizations that possess valuable IP and technical data.

In developing economies, as in the case of India, the surge in technological advancements and economic growth presents an attractive target for cyber espionage. These nations, with burgeoning digital landscapes, house valuable information that ranges from intellectual property to strategic plans. However, limited resources and the novelty of digital

technologies often fabricate vulnerabilities, making it crucial for these economies to invest in robust cybersecurity measures and international collaboration to mitigate evolving cyber threats and sustain their growth.

State Sponsored Digital Espionage

State-sponsored cyber espionage poses a growing global challenge, especially in developing economies, where hackers target commercial firms and universities for trade secrets. Cyber espionage, characterized by illicit access to confidential information, impacts industrial sectors and critical infrastructures globally. Russia's cyber operations in Estonia, Georgia, and Ukraine underscore its strategic use of cyber tools. The escalating threat, coupled with sophisticated hackers and a lack of international cooperation, poses risks to essential services and national security. The 2022 revelation of Chinese hackers targeting India's power grids exemplifies a persistent trend. Developing economies like India face shy high threats due to the expanding technological landscapes. As cyber espionage becomes more sophisticated, international cooperation, robust cybersecurity measures, and innovative defence strategies are crucial for countering this evolving threat. The UN and regional organizations like the EU and NATO aim to establish norms for responsible state behaviour in cyberspace. Governments enact laws and sanctions, while the private sector invests in cyber security measures to mitigate cyber espionage risks. The Moonlight Maze virus, detected in 1999, quietly extracted confidential information for two years

from entities like the Department of Defence and NASA. In 2012, the "Red October" malware exploited Microsoft vulnerabilities globally, remaining undetected for up to five years. Additionally, Russia's involvement in space-sponsored espionage raises concerns about the scope and persistence of their cyber activities.

Common tools of Digital Espionage

In addition to state-sponsored economic cyber espionage, various techniques are employed by cyber actors to infiltrate and compromise targeted systems:

1. Watering Hole Attacks:

Malicious actors infect legitimate websites frequented by the victim or associated individuals with malware. This compromises user visiting these sites, leading to potential data breaches.

2. Spear-Phishing:

Hackers specifically target individuals through fraudulent emails, texts, or phone calls to extract login credentials and sensitive information. This personalized approach increases the chances of success.

3. Zero-Day Exploits:

Cybercriminals exploit undisclosed security vulnerabilities or software flaws before they are discovered and patched by developers or IT teams. This tactic allows unauthorized access to systems.

4. Hacking Techniques:

Hackers exploit vulnerabilities in software, hardware, or network configurations, employing methods like zero-day exploits and spear-

phishing campaigns. These attacks aim to infiltrate and compromise the target's systems.

5. Malware Usage:

Malicious software, including spyware, Trojans, and keyloggers, is a prevalent method in cyber espionage. These tools infect devices or networks, discreetly recording data such as keystrokes, communications, and files.

6. Social Engineering:

Cyber espionage actors employ social engineering techniques like phishing emails, pretexting, or baiting to manipulate individuals within the target organization. These tactics exploit human psychology to gain access to sensitive information.

Major cases of Cyber Espionage

“Cyber bullies can hide behind a mask of anonymity online, and do not need direct physical access to their victims to do unimaginable harm.” - Anna Maria Chavez
While some cyber spies operate within the bounds of legitimate intelligence activities, numerous notorious instances reveal a more sinister agenda. Here are noteworthy examples of cyber espionage:

1. Aurora (2009):

In 2009, Google exposed a significant cyber espionage breach targeting Gmail accounts of Chinese human rights activists. Subsequent investigations revealed similar attacks on prominent companies like Adobe and Yahoo. A total of 20 companies were acknowledged falling victim to this exploitation of an Internet Explorer vulnerability, which has since been addressed.

2. COVID-19 Research (2020):

Recent cyber espionage activities have focused on COVID-19 research, with intrusion attempts reported since April 2020 against laboratories in the U.S., U.K., Spanish, South Korean, Japanese, and Australian regions. Russian, Iranian, Chinese, and North Korean actors have been implicated in these activities. It is understandable that the healthcare and pharma industries are major victims of the global digital espionage game.

3. CyFirma (2021):

In March 2021, a Singapore-based company, CyFirma, revealed that a Chinese state-backed hackers' group had targeted the information technology systems of two Indian vaccine makers—Bharat Biotech and the Serum Institute of India (SII). These companies' vaccines have been the most critical element of India's national vaccination programme and vaccine diplomacy. Chinese hackers' targeting of SII is significant when examining the reach of its vaccine, Oxford-AstraZeneca/Covishield, which is being used in 183 countries, as against almost half-reach of China's flagship Sinopharm vaccine (used in 90 countries).

Cases in India

1. Operation Shakti (Targeting Nuclear Capabilities):

Operation Shakti exemplifies nation-state-backed cyber espionage directed at India's nuclear capabilities. This case underscores the vulnerability of critical infrastructure and the potential geopolitical ramifications of cyber-attacks on national security assets.

2. GhostNet (A Massive Cyber Espionage Network):

The discovery of GhostNet revealed a large-scale cyber espionage network operating within India, targeting government and private-sector entities.

3. APT-C-23 (Targeting Defence and Aerospace):

APT-C-23, a threat group with suspected nation-state affiliations, highlights focused cyber espionage efforts on India's defence and aerospace sectors. This case study emphasizes the urgency of enhancing cybersecurity measures, particularly in critical industries crucial for national security.

Key Players

In the realm of cyber espionage, major players include the United States, China, Russia, Iran, and North Korea. Each country possesses unique cyber capabilities, targets, and strategies. The U.S. and China focus on intellectual property and trade secret thefts, while Russia leans towards political manipulation, seen in alleged election interference incidents. Prominent nation-state actors and well-known cyber espionage groups include:

1. Pioneer Kitten (Iran):

Active since at least 2017, Pioneer Kitten is suspected to have a nexus with the Iranian government. The group has engaged in targeted intrusions supporting Iranian government interests. Notably, there have been potential attempts at revenue stream diversification through network access sales.

2. Fancy Bear (Russia):

Operating since 2008, Fancy Bear employs phishing messages and spoofed websites. The group targets U.S. political organizations, European military entities, and victims globally. Fancy Bear gained infamy for the 2016 DNC and Podesta leaks and its attacks on anti-doping agencies in 2019.

3. Goblin Panda (China):

First observed in September 2013, Goblin Panda targets defence, energy, and government sectors in Southeast Asia, particularly Vietnam.

Helix Kitten (Iran):

Active since at least late 2015, Helix Kitten targets aerospace, energy, financial, government, hospitality, and telecommunications. The group is known for well-researched spear-phishing with custom PowerShell implants. Notably, Helix Kitten was involved in the 2013 New York Dam hack and attacks on the Australian Parliament House in 2019.

4. Double Dragon (China):

Active since 2012, Double Dragon engages in both state-sponsored espionage and financially motivated cybercrime. The group conducted a massive global hacking campaign in 2020. Double Dragon, also known as Cicada, is a Chinese state-sponsored espionage group with a dual identity. By day, it operates as a state-backed entity, engaging in espionage operations against various countries since 2012, including the United States and the United Kingdom. The group's activities extend beyond espionage, as it is known to delve into financially motivated cybercrime for personal gain

during the night. In 2020, Double Dragon demonstrated its prolific nature by attempting to exploit vulnerabilities in hardware. Moreover, the group continued its operations, targeting government institutions across multiple countries and infiltrating companies spanning diverse industries.

5. Lazarus Group (North Korea):

Active since 2010, Lazarus Group is known for Operation Troy, WannaCry attack, and COVID-19 vaccine data theft. Backed by the Pyongyang regime, Lazarus Group operates as a profitable enterprise for North Korea. The group is infamous for infiltrating targets over time and orchestrating high-profile cyberattacks, including the WannaCry ransomware attack in 2017.

Recommendation

- Actively engage in global initiatives and forums such as the Paris Call for Trust and Security in Cyberspace, UN, EU, and NATO to establish norms for responsible state behaviour and foster international cooperation against cyber espionage.
- Allocate resources to enhance national cybersecurity capabilities, focusing on critical sectors like defence, government, and healthcare, to effectively counter evolving cyber threats.
- Foster collaboration between government and private-sector organizations, facilitating the sharing of threat intelligence and best practices to coordinate responses against cyber threats.
- Promote cybersecurity education and training programs to enhance overall

cyber hygiene and reduce susceptibility to common attack vectors.

- Develop and enforce robust legal frameworks addressing cyber espionage, ensuring appropriate consequences for state-sponsored cyber activities.

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UNVEILING GREEN MARKETING: STRATEGIES, EVOLUTION, CHALLENGES, AND THE PATH TOWARDS SUSTAINABLE DEVELOPMENT

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Abstract

This paper delves into the evolution, methodologies, and impacts of green marketing within the global business landscape. It explores the multifaceted dimensions of green marketing, emphasizing its broader scope beyond product promotion. Addressing consumer concerns about environmental degradation, it highlights the benefits, challenges, legal aspects, and government initiatives related to green marketing in India. The paper advocates for transparency, consumer empowerment, regulatory guidelines, affordability initiatives, and holistic CSR integration as crucial elements for successful green marketing implementation. Ultimately, it asserts that green marketing, while still evolving, holds immense potential for driving sustainable development and fostering consumer engagement towards eco-friendly practices.

Keywords: Green Marketing, Marketing Mix, benefits of green marketing

Introduction

Continuous evaluation of current marketing trends is crucial for businesses. This involves ongoing research into evolving consumer behaviours within the market landscape. By pinpointing these changes, businesses can adapt their

offerings to align with consumer preferences. Today's consumer's exhibit heightened concern regarding environmental degradation and the adverse impacts of their product and service usage on the environment. This increased awareness might stem from observable

climate shifts, escalating global warming, and rising air and water pollution. Hence, incorporating green marketing strategies not only allows organizations to meet consumer expectations and address environmental worries but also presents an opportunity to secure a competitive edge and foster a robust consumer base.

Methodology

The study is exploratory in nature to provide clear guidance. The doctrinal methodology of research has been followed. Books, research journals, government reports and websites were used as sources of data.

Green Marketing

According to American Marketing Association *"Green marketing is that the marketing of products that are presumed to be environmentally safe."*

According to Polonsky, 1994 - *"Green or Environmental Marketing consists of all activities designed to get and facilitate any exchanges intended to satisfy human needs or wants, such the satisfaction of those needs and needs occurs, with minimal detrimental impact on the natural environment."*

According to the American Marketing Association, green or Environmental Marketing consists of all activities designed to get and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental input on the national environment.

Evolution of Green Marketing

The concept of Green Marketing has undergone an evolutionary process over time. As per Peattie (2001), this

evolution is delineated into three distinct phases:

- First phase: "Ecological" green marketing characterized an era where all marketing efforts were dedicated to tackling environmental issues and offering solutions to environmental problems.
- Second phase: "Environmental" green marketing marked a transition toward clean technology, emphasizing the creation of innovative products that addressed concerns related to pollution and waste management.
- Third phase: "Sustainable" green marketing gained prominence in the late 1990s and early 2000s, signifying a continued evolution in environmental marketing strategies.

Green Marketing Mix

The amalgamation of four environmentally friendly elements or factors, often referred to as the 4 Green P's, constitutes the Green Marketing Mix namely;

Green Product

During the production of eco-friendly products, companies should integrate environmentally conscious resources or materials. The properties of these resources and the materials used in both the product and its packaging must positively influence environmental aspects.

Green Promotion

Companies ought to prioritize "Green advertises" to communicate the concept of environmental protection to both their eco-friendly customer base and traditional consumers who might not typically use environmentally friendly products. Additionally, firms should introduce promotional strategies like

schemes, coupons, offers, and premiums to entice consumers to purchase eco-friendly products. For instance, Nike's 'Better World' campaign showcased its commitment to sustainability by launching a 100% recycled television advertisement, repurposing film from its previous campaigns.

Green Place

Efficient distribution of green products, without causing harm to the environment, constitutes the concept of Green Place. This involves optimizing fuel and energy use and organizing logistics with minimal emissions.

Green Price

The production of environmentally friendly products necessitates alterations in production processes, leading to increased costs. Consequently, the higher production expenses result in elevated prices for green products, potentially hindering their market acceptance. The elevated price may discourage consumers who might be unwilling or unable to pay this premium for environmentally friendly items. Lowering production and operating costs would render green products more competitively viable in the market.

Benefits of green marketing:

1. Consumers:

- **Health and Well-being:**
Green products often prioritize health and well-being, providing consumers with eco-friendly alternatives that may be safer and healthier.
- **Environmental Consciousness:**
Green marketing helps raise awareness among consumers about environmental issues and encourages environmentally responsible behavior.

- **Transparency:**
Green marketing often involves providing detailed information about the product's environmental impact, allowing consumers to make informed choices.

2. Companies

- **Advantage:**
Companies that adopt green marketing strategies can gain a competitive advantage by appealing to environmentally conscious consumers. This can lead to increased market share and customer loyalty.
- **Cost Savings:**
Implementing sustainable practices, such as energy efficiency and waste reduction, can lead to cost savings for businesses in the long run.
- **Regulatory Compliance:**
Green marketing can help companies align with environmental regulations and demonstrate commitment to corporate social responsibility, reducing the risk of legal and regulatory issues.

3. Environment

- **Reduced Environmental Impact:**
Green marketing promotes products and services that aim to reduce environmental impact, such as using renewable resources, minimizing waste, and adopting sustainable production practices.
- **Biodiversity Conservation:**
Companies promoting eco-friendly practices contribute to the conservation of biodiversity by avoiding the use of harmful chemicals and supporting sustainable sourcing.

4. Society at large

- **Global Sustainability:**
Green marketing contributes to the global sustainability agenda by promoting responsible consumption and production patterns. This has broader implications for the planet's health and the well-being of future generations.
- **Community Development:**
Businesses engaged in green marketing may support local communities through initiatives like sustainable sourcing, fair trade practices, and community development projects.
- **Research Opportunities:**
The focus on green marketing encourages innovation in technology, materials, and processes, leading to research opportunities and advancements in sustainable practices.

5. Government

- **Environmental Goals:**
Green marketing aligns with government initiatives aimed at achieving environmental goals, such as reducing carbon emissions, promoting recycling, and conserving natural resources.
- **Regulatory Compliance:**
Companies adhering to green marketing principles are more likely to comply with environmental regulations, fostering a more sustainable business environment.
- **Collaboration Opportunities:**
Non-governmental organizations (NGOs) working on environmental issues can collaborate with businesses

engaged in green marketing to further their common goals.

Examples of green marketing:

1. Indusind Bank:

Pioneering eco-friendly practices, this bank in India was among the first to discourage the use of paper for ATM counterfoils and instead adopted electronic messaging. Its efforts have significantly contributed to paper conservation and the reduction of deforestation.

2. MRF Tyres:

MRF has introduced the ZSLK series, focusing on the development of eco-friendly tubeless tires crafted from a distinctive silica-based rubber. These tires not only contribute to environmental sustainability but also provide enhanced fuel efficiency for drivers.

3. Haier:

Haier has introduced the Eco Life Series. This product line encompasses a range of appliances, including semi-automatic and automatic refrigerators, washing machines, split and window air conditioners, and various other offerings.

4. Wipro:

Wipro has introduced environmentally friendly desktops as part of the Wipro Green Ware initiative, with the goal of reducing electronic waste. These systems are devoid of toxins and adhere to a comprehensive recycling policy.

Legal aspects of green marketing in India

1. The Environment (Protection) Act, 1986

While the Environment Protection Act doesn't directly regulate green marketing, its overarching goal to protect and enhance the environment indirectly influences and encourages businesses to adopt environmentally responsible practices, which in turn align with the principles of green marketing. Adhering to the Act's provisions helps in fostering genuine and impactful green marketing initiatives in India.

- Green marketing showcases a company's environmentally responsible practices, aligning with the EPA's encouragement for businesses to take responsibility for their environmental impact under CSR initiatives.

2. The Biological Diversity Act, 2002

The relationship between green marketing and the Biological Diversity Act (BDA) primarily centres around their shared objective of promoting environmental conservation, sustainable practices, and biodiversity preservation. Green marketing drives businesses towards eco-friendly innovation, aligning with the BDA's objective to reduce negative impacts on biodiversity through sustainable practices in product development and manufacturing.

Green Marketing Initiatives Taken By Government

Green marketing, in the context of government initiatives, often involves promoting and encouraging businesses and consumers to adopt eco-friendly products, services, and practices. Here

are some examples of green marketing efforts by the Government of India

1. Eco-mark Certification Scheme:

The Bureau of Indian Standards (BIS) operates the Eco-mark Certification Scheme, which encourages the production and consumption of eco-friendly products. Products that meet specific environmental criteria are awarded the Eco-mark, signaling their adherence to environmental standards.

2. Star Labelling Programme:

The Bureau of Energy Efficiency (BEE) runs the star labeling program for appliances such as air conditioners, refrigerators, and LED lamps. The program encourages the manufacturing and purchase of energy-efficient appliances by providing star ratings, making it easier for consumers to choose environmentally friendly products.

3. Fame India Scheme 2023:

The Faster Adoption and Manufacturing of Hybrid and Electric Vehicles in India (FAME India) scheme promote the adoption of electric and hybrid vehicles. It provides incentives to manufacturers and consumers to encourage the use of environmentally friendly transportation options. As of December 5, 2023, electric vehicle manufacturers have received a subsidy of Rs. 5,248.00 crore under Phase-II of the FAME India Scheme for the sale of 11,61,350 electric vehicles.

4. UJALA (Unnat Jyoti by Affordable Leds for All)

Under the UJALA scheme, the government promotes the use of

energy-efficient LED bulbs to reduce energy consumption. The program involves distributing LED bulbs at subsidized rates, encouraging consumers to adopt energy-saving lighting solutions.

Challenges in implementation of green marketing:

1. Lack of Awareness:

In 1991, the Ministry of Environment and Forest (MOEF), Government of India, introduced the 'Eco-Mark,' a voluntary labelling scheme for certifying environmentally friendly products by the Bureau of Indian Standards (BIS). Unfortunately, the industry response to this initiative was limited, with only a few companies obtaining licenses from the Eco-Mark, BIS. Furthermore, there was a lack of efforts by organizations to raise awareness among consumers, resulting in low consumer awareness about the Eco-Mark.

2. High Initial Cost:

Initially, the implementation cost of green practices in organizations, particularly for small-scale enterprises, is perceived as high. Consequently, many organizations tend to avoid adopting green practices due to concerns about immediate profitability. Nevertheless, embracing green practices in the long term not only ensures sustained profitability but also facilitates overall growth.

3. Green Washing or Green Sheen:

Green washing, also known as green sheen, refers to the deceptive practice of marketers or organizations making

false environmental claims about their products and services. In many instances of green marketing, these claims are used misleadingly to create the impression that an organization is environmentally friendly, often with the primary goal of boosting profits or gaining political support. This practice fosters a negative perception among consumers regarding the authenticity of these products and services.

4. Lack of Standardization:

Studies have revealed that only a mere 5% of marketing claims from green campaigns hold complete authenticity, lacking standardized authentication (Mohansundaram, 2012). Marketers should rigorously verify any green claims regarding their products or services, ensuring clarity on their eco-friendly attributes, packaging, and processes. Given consumers' heightened awareness, false claims may generate negative perceptions, impacting both the organization and its green practices adversely.

5. Consumer Price Sensitivity:

Consumers often find green products more expensive, as they entail paying premium prices. The cost factor is a significant consideration for consumers when making purchasing decisions.

6. Global variations:

Different regions have diverse environmental concerns and consumer preferences. Adapting green marketing strategies to suit varied markets can be complex.

Way Forward:

1. Transparency and Authenticity:

Encourage and enforce accurate and transparent information about the environmental attributes of products. Companies should substantiate their green claims through certifications, third-party verifications, and transparent reporting of their sustainable practices.

2. **Consumer Empowerment:**

Invest in consumer education initiatives to raise awareness about the actual environmental impact of products. This can include campaigns, labels, and educational materials that inform consumers about the genuine green attributes of products.

3. **Regulatory Guidelines and Standardization:**

Develop and enforce industry-wide standards and regulations for green marketing claims. Establish guidelines that define what constitutes eco-friendly products and ensure compliance through regulatory bodies.

4. **Affordability Initiatives:**

Explore ways to reduce the initial cost of adopting green practices. This could involve government incentives, subsidies, or technological advancements that make eco-friendly alternatives more affordable.

5. **Holistic CSR Integration:**

Integrate sustainability into corporate social responsibility initiatives. Show commitment to environmental stewardship beyond marketing claims by engaging in community projects or initiatives that benefit the environment.

Conclusion

Green marketing should not disregard the economic aspect of

marketing; it is crucial for marketers to comprehend the ramifications of adopting green practices. If marketers assume that customers are not concerned about environmental issues or unwilling to pay a premium for eco-friendly products, they are mistaken. Marketers must seize opportunities to improve product performance, enhance customer loyalty, and command higher prices. Although green marketing is still in its early stages, there is a need for extensive research to unlock its full potential. The current juncture presents an opportune time for the global adoption of "Green products," which could bring about significant changes in the business landscape if nations enforce stringent regulations.

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HEALTH HAZARDS OF MANUAL SCAVENGERS IN TRICHIRAPALLI MUNICIPAL CORPORATION- A SOCIOLOGICAL STUDY

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Abstract

The condition of manual scavenging community is miserable. Since most of the people from the community are uneducated social evils are prevalent in the community. Poverty gives birth to different thing including alcoholism and gambling and so on. It is important notes that their children become part of their occupation manual scavenging. The life of manual scavengers is at risk at every stage. Looking it as a health related issues will give a clear picture of the problem. The working conditions of these scavengers face, they are exposed to certain health problems by virtue of their occupation. Generally occupational health is important aspect in not only foreign countries but also in India. In India this occupation is stratified. It is fixed by birth according to varnashrama system. Hence, the present article is an outcome of Empirical study in Trichy city Municipal Corporation in Tamil nadu with the intention to analyse the health hazards of manual scavengers.

Key words: Manual scavengers, Health Hazards, Service Death.

Introduction

Tamilnadu George Dim trove 2020 . According to 2011 census Tamil Nadu is one among the state having more number

of manual scavengers, were they manually clean and dispose the human excreta from try latrine or open defection spots, remove and clean the underground sewage blocks,

disposed septic tank waste and open drainage. The central ministry of social justice and empowerment current record shows that 363 manual scavengers in Tamil Nadu are still engaged in scavenging. There are three major dalit communities like pallar, parayar and chakkiliar (Arunthathiar) are engage in manual scavenging likewise manual scavengers face livelihood threats to rehabilitate them from these inhuman practice, civil society organisation have tried their level of best to rehabilitate and create awareness among the manual scavengers. Yet they could not succeed. But process of rehabilitation is slow .

Need For Study

Peer’s (1992) sudy on social economic condition of sanitary workers conducted at Mangalore city reveals the fact that the sanitary workers highly prone to Malaria, typhoid, T.B and skin diseases: there are few instance of elephantiasis. Hence an attempt with following specific objectives.

- To study the occupational health hazards of manual scavengers
- To know the service death details of Manual scavengers

Method of the Study

The present study is descriptive and analytical study. For this purpose researcher collected data from the respective authorities in different local bodies of Trichy municipal corporation. Here researcher used secondary data for his study. This study only concern with their occupational health hazards of manual scavengers and service death of manual scavengers.

Table 1
Summary of the study Abhisheka
Puram division

Year	Male	Female	Total	Age group
2013	04	03	07	47 to 54
2014	04	02	06	40 to 55
2015	05	03	08	44 to 58
2016	03	01	04	41 to 51
2017	02	01	03	41 to 48
2018	02	01	03	44 to 50
2013 to 2018	20	11	31	40 to 58

Source: Secondary data

In the division of Abishekapuram here, there is no record about contract workers. Then death details of permanent workers show that from the period of 2013 to 2018 shows that in the year of 2013 seven deaths occurred in the respective area out of which seven, three of them are female persons remaining four of them are male persons those who came from the age group of forty seven to fifty four. Then after in the year of 2014, six deaths were notified out of which two of them are female persons other four of them are coming under male line both of then come under age group of forty to fifty five. Then eighty deaths were notified in the year of 2015 which include three of them female person remaining five of them are male persons come under the age group of forty four to fifty eight. In the year of 2016 death details of scavengers show that four of them out of which one is a female person remaining three of them are male persons under the age group of forty one to fifty one. After that another year particularly in the year of 2017 there has been declared as three deaths from these two of them are male remaining one is a

female person those are come under forty one to forty eight. Lastly, in the year of 2018 we show that three deaths occurred in their service on these one of them female other two of them are male come under age group of forty four to fifty. From the above said table totals from 2013 to 2018 thirty one deaths which happened in the study area out of which twenty persons are coming under male remaining eleven persons was coming under female those are come under age group of forty to fifty eight, all of them married. From the death younger age death notified in the year of 2014 at the same time elder age death and large number of death detailed we can notified in the year of 2015.

Table 2
Srirangan Division

Year	Male	Female	Total	Age group
2013	05	02	07	49 to 54
2014	04	02	06	40 to 55
2015	04	04	08	44 to 56
2016	03	01	04	42 to 51
2017	02	01	03	41 to 54
2018	03	00	03	44 to 50
2013 to 2018	21	10	31	40 to 56

Source: Secondary data

From this table it shows that thirty one deaths are occurring in the respective area out of which nearly seventy percent of them are male person then equal death rates are predicted both male and female noticed in the year of 2015. But there is no female death noticed in the year of 2018. Very low age death showed in the year of 2015

The occupational hazard is very high in the manual scavenging because their handling human solid waste and liquid waste. During that time they are

suffering a lot. During their service time some of them become as physically disabled some of them suffer nervous problem .Some of them suffer severely .During their occupation they could not do their work because of their health condition that time their family members assisting them. After some time they are going to death. These details given by respective local bodies from the year of 2013 to 2018. Five of them suffer a lot of which each one is noticed from 2013, 2016,207 at the same time two of them suffered in the year of 2018. Those are come under the age group of 46 to 56.

Then another division namely Srirangam of the Tiruchirappalli city municipal corporation it gives details about the service death which occurred in the year of 2013 to 2018. They give only permanent employee list there is no record for contract worker. But they give some report which says that there are four service death occurred in contract work in the year of 2013 out of which two of them are female remaining two of them are male persons come under age group of forty six to fifty eight.

Table 3
Ponmalai Division

Year	Male	Female	Total	Age group
2013	02	02	04	46 to 58
2014	02	01	03	51 to 60
2015	03	03	06	48 to 55
2016	04	00	04	47 to 59
2017	02	01	03	54 to 58
2018	02	02	04	40 to 55
2013 to 2018	15	09	24	40 to 60

Source: Secondary data

From the table in the year of 2014 three of them died while doing their work

out of which two of them are male persons another one is a female person those who come under the age group of fifty one to sixty. At the same time in the year of 2015 six death occurred in the respective area from this three of them female another three of them are male persons come under the age group of forty eight to fifty five. Then in the year of 2016 death details of scavengers in respective local body are four from this for both of them are male persons who come under the age group of forty seven to fifty nine. After that in the year of 2017 three deaths noticed among the three, two of them are male persons another one is a female person come under the age between the fifty four to fifty eight. Lastly, in the year of 2018 four deaths notified in the respective areas out of which two of them are male another two of them are female persons who come under the age group of forty to fifty five.

Table 4

Tiruchirappalli Municipal Corporation

Year	Male	Female	Total	Age group
2013	14	07	21	46 to 58
2014	12	06	18	51 to 60
2015	13	11	24	48 to 55
2016	09	03	12	47 to 59
2017	06	03	09	54 to 58
2018	08	01	09	40 to 55
2013 to 2018	62	31	93	40 to 60

Source: Secondary data

Conclusion

From the data given from respective local bodies of Trichy municipal corporation related to the matter of service death notified in three divisions are ninety-

three respondents out of which sixty two of them who come under age group of forty to fifty eight those who belongs to a male Remaining thirty one of the respondents come under the age group of forty to fifty eight belongs to the female, it shows that large number of service death occurred from the male line compare with female line. Comparing the year 2013 to 2018 the large number of death noticed in the year of 2015. At the same time very least number of deaths identified in the years of 2013, 2015 and 2016. Whereas the large number of female death we can find in the year of 2015. Then younger person service death occurred belongs to male line which is identified in the years of 2015 and 2018 the after we identified from the table young scavenger death occur in female line which occurs in the age of forty six come under the year of 2015.

In Trichy municipal corporation some of the scavengers, in their service they going to ill. They could not give their work because of their physical unfitness that time they asked their children in this task after some time the scavengers who face death then after their children also come their place. This kind of list is given from the Trichy municipal corporation from 2013 to 2018. It shows that five people both of them who become physically unfit because of their illness. Those who come under the age group of forty six to fifty six. Of the five persons, two of them are very young people who come under forty six ages because of their occupation they become wounded as physically unfit then two of them affected by mentally ill remaining. Out of which

five people three of them severally affected by their nervous system.

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THE EVOLVING LANDSCAPE OF CYBER LAW AND CYBER SECURITY

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Abstract

These days, people get everything they need on the internet. Anything that comes to mind may be done on the internet, including social networking and online learning. The internet and all its advantages increased the public's awareness of cybercrime. As individuals rely more and more on the internet, a wide range of cybercrimes have emerged. Cyber law comprises cyberspace, the internet, and any other topic related to information technology. A robust ecosystem within a company is necessary to deter cybercrime. An ecosystem for an organization typically consists of three elements: automation, interoperability, and authentication. By creating a robust and secure system, the company would be able to defend these elements and fend off attacks from viruses, attrition, hackers, insider threats, and stolen equipment.

Key Words - Awareness, Advantages, Cyberspace, Cyber law, Information Technology

Introduction

A few years ago, there was a lack of knowledge about the crimes that may be committed online, but in terms of cybercrime, India is currently not far behind other nations where the incidence of occurrence is also rising. However, there are certain risks associated with computers and the internet that might

negatively affect civilizations. Cybercrime poses a threat to many individuals and entities that have computers linked to the internet, especially those using mobile devices. Governmental organizations, as well as private citizens, rely on information technologies for most of the information processing in the current environment. It is impossible to overstate

the importance of government and commercial enterprises hiring and retaining highly skilled cybercrime experts. For the Organization to succeed, cyber activity control, prevention, and investigation are essential.

Online crimes are often broadly classified into three primary groups, including: 1. Individual 2. Property 3. Administration 4. Individual

Cyber stalking, trafficking, distribution, and "grooming" are examples of this kind of cybercrime. Law enforcement organizations currently take cybercrime extremely seriously and are cooperating globally to track down and apprehend those responsible.

2. Property

In this scenario, cyber offender embezzle money by stealing bank account information, use credit card fraud to make regular online purchases, con unsuspecting people out of their hard-earned cash, or use malicious software to break into an organization's website or interfere with its operations. Just as vandals harm property offline, bad malware may likewise harm hardware and software.

3. Government

Cyber terrorism is the name given to crimes committed against a government. If criminals are successful, the public may become terrified and devastated. This type of criminal propagates propaganda or hacks military or government websites. Terrorist organizations or hostile foreign governments may be the perpetrators.

Background

In 1820, the first cybercrime was documented. Although the first computers appeared in Japan, China, and India about

3500 B.C., Charles Babbage's analytical engine is regarded as the invention of the modern computer. The loom was invented in France in 1820 by Joseph-Marie Jacquard, a textile maker. This gadget made it possible to weave unique textiles or materials using a continuous sequence of stages. As a result, the workers at Jacquard became extremely concerned about their lives and conventional jobs, and they chose to sabotage to dissuade Jacquard and prevent them from using the new technology in the future.

Cyber Law

The creation of Cyber Law aimed to regulate crimes carried out using computer resources, the internet, or cyberspace. Cyber Law is the term used to describe the legal concerns pertaining to the usage of computers or communication technologies. The goal of creating Cyber Law was to control crimes committed using computers, the internet, or cyberspace. The phrase "cyber law" refers to the legal issues surrounding the use of computers and other communication technology.

- ❖ It is advisable to carefully examine the internet legislation.
- ❖ a basic understanding of the Internet and its security.
- ❖ Read about incidents of cybercrime. One might become aware of such crimes by reading those cases.
- ❖ The effect of technology on crime. The 2000 Indian Information Technology Act the Information Technology Act, 2000 (ITA-2000, or the IT Act) is an act of the Indian Parliament (no. 21 of 2000), as stated in Wikipedia. It was notified on October 17, 2000. The most

significant legislation in India pertaining to electronic trade and digital crimes, or cybercrimes, is this one. The United Nations Model Law on Electronic Commerce 1996 (UNCITRAL Model), which was suggested by the UN General Assembly in a resolution dated January 30, 1997, serves as its foundation. The following are some of the main ideas of the Information Technology (IT) Act of 2000:

- ❖ Nowadays, email is regarded as a legitimate and authorized means of communication.
- ❖ Act has opened new economic opportunities for organizations to become the Certifying Authorities and issue digital certificates.
- ❖ The primary purpose of this Act is to address the security issue. It established the concept of digital signatures, which are used to confirm an individual's identity online.
- ❖ The Act offers the corporation financial compensation as a remedy if criminals cause the organization any injury or loss. India's Cyber Law The sections under the IT Act of 2000 are listed below.

1. **Section 66- Computer** system hacking, data manipulation, etc.

Whoever intends to cause harm, loss, or to erase, change, or destroy any information stored on a public computer system or on the computer of an individual. Hacking is any action that reduces its usefulness, devalues it, or negatively impacts it in any way.

2. **Section 66A-** Using any kind of communication facility to send abusive

remarks. Any message or information that is offensive or contains threatening language sent through any communication service; • Any information that is false or invalid and sent with the intent to cause annoyance, inconvenience, danger, insult, obstruction, injury, criminal intention, enmity, hatred, or ill will.

3. Any email or electronic communication sent with the intention of upsetting, upsetting, or misleading the recipient about where the message originated. Penalties: Anyone found guilty of offences covered by this section faces a maximum penalty of three years in jail and a fine.

3. Section 66B

Acquiring communication equipment or computer resources that have been stolen Insincere willfully accepting or holding onto any stolen computer, computer resources, or communication devices, or having reasonable suspicion that one is doing so.

4. Section 66C

Theft of identity, the unauthorized use of a password, digital or electronic signature, or any other form of unique personal identity is illegal. Penalties: An individual found guilty of these offences may face a maximum sentence of three years in jail and a fine of one lakh rupees.

5. Section 66D personating someone while using a computer to cheat Anybody who attempts to deceive another person by using a computer or communication equipment to impersonate someone else would be punished with a fine of up to Rs. 1 lakh and/or a period of imprisonment lasting up to three years.

6. Section 66E

Security infringement or breach? Anybody found to have intentionally or knowingly published, transmitted, or taken pictures of another person's intimate areas without that person's consent and violating their right to privacy faces a maximum sentence of three years in prison, a fine of two lakh rupees, or both.

7. Section 66F

- Terrorism using the internet A. Anybody who knowingly threatens the security, integrity, unity, or sovereignty of the people or any group of people or incites panic among them I. Denies anybody access to computer resources.

- Attempting to breach security or get unauthorized access to a computer resource or to use more access than is permitted.

- introducing any computer contaminant, and by doing so, causes or is likely to cause death, injury, or destruction of property; or disrupts, or it is likely to cause, the supply or services that are necessary for people to survive; or adversely affects the infrastructure of critical information as defined by section 70 of the IT Act.

- Penalties: Life in prison is the penalty for anybody who plans or carries out such cybercrimes or cyberterrorism.

8. **Section 67** - sending or disseminating pornographic content online Anyone who uses electronics to transmit, publish, or induce to disseminate any pornographic content. Anything that is vulgar, lubricious-seeming, or if it tends to corrupt anyone who is likely

to consider all relevant circumstances when reading, seeing, or hearing the matter that is contained in it, shall be sentenced on the first convict with either description for a term that may extend up to five years of imprisonment along with a fine that may extend up to one lakh rupees. On the second or subsequent convict, it may be sentenced with either description for a term that may extend up to ten years of imprisonment along with a fine that may possibly reach two lakh rupees.

Positive and Negative Aspects of the It Act

- The existence of this Act has allowed many businesses to undertake e-commerce without worry. Up until recently, the absence of a legislative framework to regulate internet business transactions hampered the growth of electronic commerce in our nation.
- Furthermore, the Act makes it possible for business organizations to serve as Certification Authorities in connection with the Act's issuing of Digital Signature Certificates. If the government's requirements are met, there are no restrictions under the Act regarding the type of legal body that can be recognized as a Certifying Authority.
- Additionally, it offers details on security issues that are vital to the effectiveness of using electronic transactions. The phrase "secure digital signatures" was established and accepted as part of the Act; these signatures must have been subjected to a set of security procedures. It follows that digital signatures are now safe and will be very important to the

economy. Securing online transactions can be facilitated with digital signatures.

- The Act allows the firms to use the electronic form established by the relevant government to electronically submit any of their papers with any office, authority, body, or agency that is owned or managed by that government.

Indian Penal Code, 1860(IPC)

- **Section 292:** Originally intended to deal with the selling of pornographic materials, this section has expanded to include a variety of cybercrimes in the digital era. This clause also governs how pornographic content or child-exposed sexual activities or exploits are published or communicated via technological means. Such activities are punishable by up to two years in jail and a fine of Rs. 2000, respectively. Any of the offences carry a maximum sentence of five years in jail and, for repeat (second time) offenders, a fine of up to Rs. 5000.
- **Section 354C:** Under this clause, capturing or disseminating images of a woman's intimate areas or behaviour without her permission is considered cybercrime. Since it entails witnessing a woman engage in sexual activity while under the legal age, voyeurism is the only topic covered in this section. Both Section 66E of the IT Act and Section 292 of the IPC are sufficiently wide to cover acts of a similar kind in the absence of the necessary components of this section. First-time offenders may be sentenced to up to three years in prison, while repeat offenders may be sentenced to up to seven years, depending on the nature of the offence.

- **Section 354D:** This chapter describes and penalizes stalking, including physical and cyberstalking. Cyberstalking is the tracking of a woman by email, the internet, or other technological methods, or the attempt to get in touch with her despite her lack of interest.

For first-time offenders, the maximum sentence is three years in jail; for repeat offenders, it is five years, plus a fine.

- **Section 379:** Theft is punishable by up to three years in prison in addition to a fine under this section. The fact that many cybercrimes involve stolen computers, stolen data, or hijacked electronic devices is one reason why the IPC Section is relevant.
- **Section 420:** This section addresses dishonestly inducing the handover of property and cheating. This clause imposes a fine and a seven-year jail sentence on cybercriminals who commit offences such as building bogus websites and cyberfraud. Crimes pertaining to creating fake websites or stealing passwords for fraudulent purposes are covered under this provision of the IPC.
- **Section 463:** Electronic document or record falsification is covered under this section. Under this clause, spoofing emails carries a maximum sentence of seven years in jail and/or a fine.
- **Section 465:** The penalties for forgeries are usually covered by this section. Under this provision, acts including forging electronic mail addresses and creating fraudulent papers online are dealt with and penalized by up to two years in jail, or both.

- **Section 468:** A seven-year jail term and a fine are imposed for fraud committed with the purpose to deceive. Email spoofing is also penalized in this area.

Safety in Cyberspace

Use a strong password whenever feasible, and if you use webmail, activate two-step authentication. Setting up security for your social media or webmail accounts is crucial. Strong password guidelines:

A password should include at least eight characters.

It is recommended to include one or more lowercase, uppercase, numbers, and symbols.

- Never communicate or exchange any private information, including passwords, bank account numbers, and ATM pins, over unencrypted mail or via an unencrypted connection. Unencrypted websites are those that lack the lock symbol and https in the browser's address bar. The website is secure because of the "s," which stands for secure.
- Don't register on any social networking site until you are of legal age.
- We refer to this as a drive-by download. Pop-ups that offer site surveys or anything similar on e-commerce sites should be ignored since they can be malicious programming.

Types of cyber crime:

Hacking:

A person's computer is compromised to get sensitive or private data. Hacking is classified as a crime and subject to punishment in the US. This is not the same as ethical hacking, which is a technique used by many companies to

assess the security of their online presence. When someone hacks into someone else's computer, they may not be aware that their computer is being accessed remotely and that they are using a variety of applications to do it. Password cracking software is another tool that many crackers use to attempt to obtain access to resources. Hackers could load data onto users' computers and keep an eye on what they do there. Unbeknownst to them, a hacker may install many programs on their PC.

Theft

When someone downloads software, games, movies, music, or other content in violation of copyright, it is considered this kind of cybercrime. Even peer-sharing websites promote software piracy, and the FBI is currently focusing on a number of these websites. These days, the legal system deals with cybercrime and regulations are in place to prevent people from downloading illegally.

Malicious software:

This malware, which is often known as a computer virus, is Internet-based software or programmed, designed to cause network disruptions. The program is used to break into a system and obtain private data or information, or it can be used to harm other software that is already installed in the system.

Identity theft

This is a significant issue for anyone who uses the Internet for banking and monetary transactions. In this type of cybercrime, an offender obtains access to a victim's bank account, credit cards, debit card, Social Security number,

complete name, and other private information to embezzle funds or make purchases online using the victim's identity. The information that a person provides to an identity thief can be used to file taxes, seek credit, or obtain medical care. The victim may suffer significant financial losses as a result, and their credit history may even be damaged.

Computer vandalism:

This kind of cybercrime doesn't include theft; instead, it involves damaging or destroying data. It spreads viruses. Cyber terrorism is the use of online assaults for terrorist purposes. Terrorists with an understanding of technology are employing 512-bit encryption, which cannot be cracked.

Online job Fraud:

An online job fraud plan is deceiving job seekers by offering them false hope and a better position with a bigger salary.

Phishing:

Phishing fraud occurs when an email purports to be from a reliable source but really contains a malicious attachment used to steal user personal data, including ID, IPIN, card number, expiration date, CVV, and so on. The data is then sold on the dark web.

Vishing

Vishing involves utilizing victims' phones to steal sensitive information. Cybercriminals coerce victims into disclosing personal information and granting access to personal accounts by employing sophisticated social engineering techniques. Like phishing and smishing, vishing deceives victims

into believing that answering the call is a sign of politeness. It is common for callers to pose as representatives of the government, tax agency, police department, or victim's bank.

Smishing

Smishing, as the name implies, is a scam wherein victims are tricked into contacting a fictitious number, accessing a fraudulent website, or installing dangerous software that remains on their computer using text messages sent via mobile phones.

Credit card Fraud

Unauthorized transactions or card withdrawals are committed in credit card (or debit card) fraud to get the victim's money. Credit/debit card fraud occurs when money is taken out of a customer's account without authorization or when unauthorized purchases are made. When a criminal obtains knowledge of a cardholder's personal identification number (PIN) or debit/credit number, fraudulent conduct takes place. Your data may be accessed by dishonest workers or cybercriminals.

Differences between Cyber Crime and Cyber Security

Cyber security is more than just following rules and taking precautions against online fraud. Cyber security's goal is to make it more difficult for hackers to identify and take advantage of weaknesses in business and governmental networks. In contrast to conventional crime, cybercrime often prioritizes protecting the privacy of individuals and their families when they participate in online activities.

1. **Crime types:** Cybersecurity crimes are those in which, should they become hacked, a computer programmer, piece of hardware, or computer network becomes the primary target of an attack. However, the primary objectives of cybercrime are a particular individual or group of people as well as their data.

2. **Victims:** Secondly, the kinds of victims in these two professions also differ from one another. In cyber security, the main targets are governments and companies; in cybercrime, victims might include people, families, organizations, governments, and corporations.

3. **Subject matter:** Scholars in two distinct disciplines study these two subjects. Cyber security is a subfield of information technology, computer science, and computer engineering. To improve network security, engineering, networking, and code development are utilized. Cybercrime, on the other hand, is classified as social, psychological, and criminological. It alludes to a hypothesis on why crime happens and how to stop it.

Cyber Security Strategies • Ecosystem

• E-Governance

Through e-governance, the government can offer services online. However, many nations do not use e-governance to its potential. The goal of cyberlaw should be to advance this technology so that citizens have more control.

• Open Standards

Open standards directly lead to improved security against cybercrime. Open standards make it simple for both people and enterprises to put in place the right

security safeguards. Additionally, a wider choice of new technologies and a higher rate of economic growth will be made possible by these standards.

• IT Mechanisms

There are several useful IT tools or methods at one's disposal. Promoting these controls and methods is crucial to the battle against cybercrime. Among the measures are data encryption, association-based protection, link-based protection, and end-to-end protection.

Need For Cyber Laws In India

Cyberlaw is especially important in nations like India where internet usage is commonplace. The law was passed to defend people and organizations against cybercrime. If someone infringes and breaks the law, other persons or organizations may be able to take them to court under cyberlaw-

- Since all stock transactions are now completed in demat format, everybody participating in these transactions is covered by cyber law if any fraudulent transactions occur.

- Technology is advancing so quickly that people are filling out government papers online, including income tax returns and service tax reports. Because anybody may abuse those forms by breaking into official websites, cyberlaw is necessary to pursue legal action.

- Electronic contracts and digital signatures are commonly used in business transactions. Anyone working with digital signatures and electronic contracts can simply abuse them. Cyberlaw offers defense against these kinds of frauds.

Impact of Cyber Crimes

- **Leakage of Personal Information**

People suffer from more than simply monetary losses when their personal information is compromised. Despite its safety, many social networking sites still provide an open platform for anybody to view the lives of others, which can be harmful. In addition, hackers can access user accounts and obtain any data they choose. People are harmed by phishing and spamming as well.

- **The Treat to National Security**

Customers begin to lose faith in these websites and applications because of these monetary losses and the risk to their personal information. The website or software is deemed dangerous and deceptive, even if someone else is a criminal. Furthermore, it discourages customers from initiating a purchase when their credit card information is requested. This undermines an e-enterprise's credibility, endangering a possible business.

Conclusion

Cyber laws need to be updated and improved constantly to keep up with the growing dependency of humans on technology, both in India and throughout the world. The epidemic has also resulted in a notable rise in the number of remote workers, which has raised the demand for application security. Legislators must take additional care to stay ahead of imposters so they can act against them as soon as they appear. It can be prevented if lawmakers, internet providers, banks, shopping websites and other intercessors work together. However, ultimately, it is up to the users

to participate in the fight against cybercrime. The only way for the growth of online safety and resilience to take place is through the consideration of the actions of these stakeholders, ensuring they stay within the confines of the law of cyberspace.

The IT Act, 2000 was passed by the Indian government to combat cybercrimes. The Act also amends the Reserve Bank of India Act of 1934, the Banker's Books Evidence Act of 1891, the Indian Evidence Act (IEA) of 1872, and the Indian Penal Code of 1860. Cybercrime may begin anywhere on the globe and spread across national borders via the internet, making it more difficult to investigate and prosecute these crimes legally and technically. To combat cybercrimes, international harmonization efforts, coordination, and cooperation among many states are essential. Our primary goal in producing this essay is to educate the public about cybercrime.

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FORENSIC ACCOUNTING AND FRAUD

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Abstract

Forensic accounting is one of such options that don't get much limelight and attention in the career field as well as accounting field. But forensic accounting gets its business on when fraudulent activities get to their peak. Forensic accountant is always ready to investigate the crimes that revolve around the accounting and banking crime environment. Forensic accounting is an area where a forensic accountant examines financial information to detect and investigate financial fraud. ICAI has incorporated a Certified Course on Forensic Accounting and Fraud Detection for practising CAs. Using scientific tests to investigate a crime." Forensic accounting examines financial data for signs of suspected criminal conduct. Accounting, auditing, and investigative procedures are used by forensic accountants to determine whether a person or corporation has committed financial crimes such as fraud or embezzlement. A forensic accountant is a financial professional who specialises in investigating and analysing financial information for legal purposes.

Key words: *Forensic accounting, fraud, crime, business, finance*

Introduction

Financial deceit, misappropriation, and dishonesty within the business realm pose substantial threats to organizations and their stakeholders. In response to this

challenge, the field of forensic accounting emerges as a critical tool for unravelling the intricate web of fraudulent activities. Forensic accounting, a specialized branch of accounting, goes beyond traditional

financial analysis. It involves a meticulous examination of financial records, transactions, and statements with the aim of uncovering discrepancies, fraud, or other financial misdeeds. In essence, forensic accountants act as financial detectives, employing a combination of accounting knowledge, investigative skills, and technological tools to bring financial wrongdoing to light.

Implications and Consequences of Financial Fraud

Financial fraud can have severe implications for individuals, businesses, and the overall economy. Immediate consequences may include financial losses, reputational damage, legal action, and criminal charges. Individuals convicted of fraud may face heavy penalties like fines, restitution payments, asset seizures, or even imprisonment, depending on the nature of the crime and the jurisdiction.

Forensic accounting a brief definition

Forensic accounting deals with the matters of financial crimes across all financial statements. It can be any kind of crime that happens in the financial arena of the company.

Forensic accounting as a Tool

Forensic accounting is considered as an important tool for investigating frauds in accounts and financial statements. Manipulation of accounts became common in this modern era which ensures that forensic accounting plays a major role in finding fraudulent activities. The detection techniques used in forensic accounting includes conducting interview, reviewing public document and doing the background check, analysing the financial statement, Benford's law, ratio analysis,

data mining, and computer assisted auditing works, critical point auditing, proprietary audit

Causes of Growth of Forensic Accounting in India

- India not having enough forensic accountants and lack of awareness and understanding of the profession.
- Conventional accounting could not bring into light many financial irregularities, appropriation and expropriation detrimental to stakeholders due to failure of internal and external audits in the organisations.
- Culprits are using sophisticated technologies in committing frauds hence to replace old investigation methodology in the right way of new technology on the IT platform.
- To collusion and lobbying rotation and appointment of the statutory auditors by companies in India.
- Auditor's certificates are hardly scrutinised carefully especially when the reports are unclean, doubtful and qualified.

Types of forensic accounting:

1. Money laundering

Money laundering is the process of making illegally obtained funds, often from criminal activities; appear to be legitimate by passing them through a complex sequence of banking transfers or commercial transactions. Essentially, it's the act of cleaning "dirty money" to make it seem like it comes from legal sources.

2. Bankruptcy

Bankruptcy is a legal status of an individual or entity that is unable to repay their outstanding debts. It is a formal

process initiated by the debtor or creditors through a court order.

3. Asset misappropriation

Asset misappropriation refers to the intentional theft or misuse of an organisation's resources or assets by individuals within the organisation. This type of fraud involves employees or even management diverting funds or resources for their personal gain.

4. Criminal investigation

Criminal investigation is the process of gathering, analysing, and evaluating evidence to solve a crime and build a case against a suspected perpetrator.

5. Defaulting on debt

Defaulting on debt occurs when a borrower fails to fulfil their obligation to repay a loan or meet the terms of a debt agreement. This can happen for various reasons, such as financial difficulties, unforeseen circumstances, or a lack of resources to make scheduled payments.

6. Financial identity theft

Financial identity theft occurs when someone wrongfully acquires and uses another person's financial information for fraudulent purposes.

Step by step process for investigating fraud in finance

1. Identify Red Flags

Recognize potential signs of fraud, such as unexpected financial discrepancies, unusual transactions, or patterns that deviate from the norm.

2. Secure the Scene

If applicable, secure physical and digital evidence to prevent tampering. Ensure the preservation of documents,

electronic records, and any relevant physical assets.

3. Assemble a Team

Form a multidisciplinary team including forensic accountants, investigators, legal experts, and IT specialists to cover various aspects of the investigation.

4. Preserve Evidence

Document and preserve all relevant evidence, including financial records, emails, documents, and any electronic data. Maintain a chain of custody for physical evidence.

5. Notify Law Enforcement (if necessary)

If the fraud involves criminal activity, report the incident to law enforcement authorities and collaborate with them throughout the investigation.

6. Conduct Initial Interviews

Interview relevant personnel to gather information about the suspected fraud. Pay attention to details, timelines, and any information that might help uncover the fraud.

7. Analyze Financial Documents

Review financial statements, bank records, invoices, and other relevant documents to identify inconsistencies, discrepancies, or suspicious transactions.

8. Utilize Forensic Accounting Techniques

Apply forensic accounting methods, such as data analytics and tracing, to follow the money trail and identify patterns indicative of fraud.

9. Perform Digital Forensics

If the fraud involves electronic transactions, conduct digital forensics to

analyze computer systems, emails, and other digital records for evidence

10. Review Internal Controls:

Assess the organization's internal controls to identify weaknesses or vulnerabilities that may have contributed to the occurrence of fraud.

Forensic Accountant

A forensic accountant is a financial professional who specializes in investigating and analyzing financial information for legal purposes. These professionals combine accounting, auditing, and investigative skills to uncover financial irregularities, fraud, and other discrepancies. Forensic accountants play a critical role in safeguarding the financial integrity of organizations and assisting legal entities in understanding complex financial matters. Their work contributes to the detection, prevention, and resolution of financial fraud and disputes.

Here are key aspects of a forensic accountant's role

- Investigative Skills
- Financial Analysis
- Fraud Detection:
- Litigation Support
- Expert Reporting:
- Ethical Considerations
- Asset Tracing

What do forensic accountants do?

Forensic accounting is often divided into two main categories:

- (1) Investigative services
- (2) litigation/dispute services.

1. Investigation service:

Forensic investigations are a combination of accounting and investigative techniques used to discover,

prove or even rule out potential financial crimes. They can be performed in anticipation of criminal or civil litigation, or in some cases are performed in anticipation of filing an insurance claim to recover fraud-related losses. Investigative techniques can also be employed on a preventative basis to form systems to detect fraud or prevent fraud from occurring in the first place. The types of investigative projects are as numerous as the schemes that they are designed to investigate. Examples include, but are certainly not limited to, investigations of:

- Embezzlement
- Asset misappropriation
- Financial statement fraud, also known as “cooking the books”
- Corruption schemes
- Securities fraud
- Tax evasion
- Money laundering
- Ponzi schemes

2. Litigation/dispute service

Forensic accountants are often engaged to assist in disputes, either in a consulting or testifying capacity. As a consultant, a forensic accountant may be hired by an attorney to assist in collecting, analyzing, and interpreting financial information that is pertinent to a given case. Nearly every lawsuit has at least some financial aspect. Forensic accountants may also be engaged to serve as an expert witness. As an expert witness, the forensic accountant is uniquely positioned to testify at trial on financial matters due to their specialized knowledge or proficiency in the field of accounting. Some examples of litigation and dispute related projects include:

- Measurement of economic damages and/or lost profits
- Asset tracing in family law or divorce proceedings
- Measurement of losses due to business interruption
- Accounting assistance in business disputes
- Quantifying effects of intellectual property infringement
- Assisting the court in bankruptcy proceedings
- Assistance in professional malpractice lawsuits
- Valuation of business interests and other assets

Awareness of Forensic Accounting in India

Forensic accounting in India has gained recognition and importance in recent years due to the growing complexity of financial transactions and an increased emphasis on corporate governance. Organisations are becoming more aware of the need to investigate financial irregularities, fraud, and misconduct. Several professional bodies, such as the Institute of Chartered Accountants of India (ICAI), offer specialised courses and certifications in forensic accounting. The legal and regulatory framework in India has also evolved to address financial crimes, further highlighting the significance of forensic accounting. As businesses strive for transparency and accountability, the demand for forensic accountants is likely to continue rising in India, contributing to the overall awareness and adoption of forensic accounting practices. In the wake of increasing levels of frauds and economic

irregularities and considering to need to prevent it as the necessity of the day, it is expected that the prospects of forensic accountants are bound to increase considerably in the near future, their roles being:

- To aid in a settlement, claim, or jury award by reducing the financial component as an area of continuing debate.
- Avoiding fraud and theft.
- Restore and rejuvenate the public's confidence with the financial environment of the nation.
- To introduce a corporate governance policy giving due importance to forensic accounting and auditing.
- Helping in legal proceedings, giving one's expert opinion and facts in court as an expert witness and preparing visual aids to reinforce the trial evidence.

The main steps in forensic analytics are

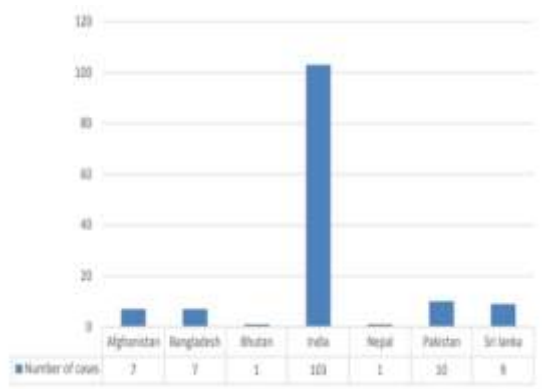
- Data collection
- Data preparation
- Data analysis
- Reporting.

There is a growing potential and future in forensic accounting as a 'specialised area' in accounting and finance. Given the abnormal levels of financial irregularities and frauds, the requirement for forensic accountants is more and is an in demand career in this decade.

Report

Globally, financial irregularities are a major concern around the world. It is also a key issue for emerging countries like India, which is now the fifth largest economy according to the International

Monetary Fund (IMF) as of June 2023. India is ranked 85th out of 180 countries in Transparency International's Corruption Perception Index (CPI) for the year 2022. Its reputation for combating corruption is not encouraging. Fraud and corruption are so ubiquitous that they are continuously becoming accepted as a normal way of life.



Source: Report to the Nation's 2022 by ACFE

India Ranks No. 1 in terms of the number of fraud cases in South Asian Nations, as per the Report to the Nation's 2022 by ACFE (Association of Certified Fraud Examiners).

There have been numerous instances of financial statement misrepresentation, which have negatively impacted both the auditors and companies like Enron, WorldCom, Adelphia, Global Crossing, Xerox, and many others like Cendant, Lincoln Savings, Sunbeam (Albrecht, 2005). For a nation in dire need of investment, eliminating fraud is important.

In the financial year 2023, the Reserve Bank of India (RBI) reported a total of more than 13 thousand bank fraud cases across India. This was an increase compared to the previous year and turned around the trend of the last decade.

Case study on Satyam scam:

Satyam computers:

Satyam Computer Services Limited, a worldwide IT firm based in India, is now part of a notorious roster of companies implicated in financial fraud. Its CEO, Mr. Ramalingam Raju, has acknowledged responsibility for manipulating accounting records, inflating revenues and profits, and falsely reporting a non-existent cash reserve of approximately \$1.04 billion.

The media has coined the Satyam accounting fraud case as "India's Enron." Ironically, "Satyam" translates to "truth" in the ancient Indian language of Sanskrit (Basilico et al., 2012). Despite receiving the "Golden Peacock Award" for the best-governed company in both 2007 and 2009, Satyam now faces a tarnished reputation due to the revelations of financial misconduct.

The rise of Satyam computers:

Founded in 1987 by Mr. Ramalinga Raju in Hyderabad, India, Satyam Computer Services Limited rapidly ascended as a prominent player in the outsourced IT-services industry, starting with a modest 20 employees and eventually expanding its global footprint to operate in 65 countries. The company achieved the distinction of being the first Indian firm registered with three International Exchanges—NYSE, DOW Jones, and EURONEXT.

Satyam stood as a testament to India's success, garnering awards for innovation, governance, and corporate accountability. In 2007, Mr. Raju was honoured with the 'Entrepreneur of the Year' award by Ernst & Young, and on April 14, 2008, Satyam

was recognized by MZ Consult for being a 'leader in India in CG and accountability' (Agrawal and Sharma, 2009).

Anatomy of Satyam fraud:

Maintaining records and reports:

Mr. Ramaraju kept all his records of meetings and as well as the minutes since 2002. He still maintains records of the 2008-09 financial year

- **Fake invoices and bills :**

The Satyam company provided fake bills and invoices availing the financial fraud that occurred in the company. The research delves into the method employed for generating counterfeit invoices within the IMS system, posing the question: "How was the integrity of the IMS subverted in this process?" Notably, the IMS system mandates completion of the 'Invoice Field Status' for order processing.

Spider web of companies:

Accordingly a lot of investment companies were involved in the Satyam scam but a lot of companies denied that as a fact. All these companies have several transactions with them

Fake and underutilised employees in the company:

There are so many underutilised employees in the company but it didn't show up well as how the scam shows up in the court.

Verdict of Supreme Court

All the accused implicated in the Satyam fraud case, including Raju, faced charges ranging from cheating, criminal conspiracy, forgery, breach of trust, inflating invoices and profits, to fabricating accounts and violating numerous income tax laws. The Central Bureau of Investigation (CBI) filed three

charge-sheets initially, which were later consolidated into one extensive document spanning over 55,000 pages. Over the past six years, the examination involved scrutinising more than 3,000 documents and hearing testimony from 250 witnesses. On April 9, 2015, a special CBI court handed down a verdict, sentencing Mr. B. Ramalinga Raju, his two brothers, and seven others to seven years in prison in connection with the Satyam fraud case. Additionally, the court imposed a fine of Rs. 5 crore on Ramalinga Raju, the founder and former chairman of Satyam Computer Services Ltd, and his brother B Rama Raju. The remaining accused was fined in the range of Rs. 20-25 lakh each. Among the individuals found guilty were B. Ramalinga Raju, his brother and Satyam's former managing director B. Rama Raju, and former chief financial officer Vadlamani Srinivas.

Conclusion

In conclusion, forensic accounting plays a pivotal role in addressing and preventing fraud within financial systems. As businesses navigate complex financial landscapes, the need for specialised professionals adept at uncovering financial irregularities becomes increasingly crucial. Forensic accountants employ a range of skills, including financial analysis, investigative techniques, and knowledge of legal frameworks, to identify, document, and mitigate instances of fraud. Fraud, whether in the form of asset misappropriation, financial statement manipulation, or more sophisticated schemes, poses significant threats to organisational integrity and financial stability. Today is the right time to adopt

and adhere strictly the forensic accounting at all the levels of government, public and corporation accounting as an accounting tool to cure and prevent the entities from the financial and other ills. Forensic accounting serves as a robust line of defence against fraud, offering a multidisciplinary approach that combines financial expertise, investigative skills, and legal knowledge. The ongoing evolution of forensic accounting practices is essential in adapting to emerging challenges and safeguarding the financial health of organisations and economies.

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