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A STUDY ON MULTI-DIMENSIONAL ANALYSIS OF CONSUMER ATTITUDE TOWARDS DIGITAL PAYMENT SYSTEMS FROM A TRUST BASED MEDIATION MODEL

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ABSTRACT

This research paper examines the essential factors that are determining the consumer behaviour towards the payment systems digitally in the fast-changing financial ecosystem. The digital payment system has become a very prominent feature with the spread of financial technology (fintech) solutions and the spread of the emphasis on cashless economies through Unified Payments Interface (UPI), mobile wallets and internet banking. Here, consumer perception, and attitude have gained more significance to financial institutions, policymakers and service providers to increase adoption and use. The study uses a model-based approach by bringing together key constructs that are based on the existing technology acceptance theories. In particular, the question of Perceived Ease of Use, Perceived Usefulness, Security and Privacy, Trust and Social Influence is investigated to determine the overall and the specific influence they have on consumer attitude. These constructs have been able to offer a holistic model in understanding both technological and behavioural aspects that affect user perception. The research used primary data to conduct the study by utilizing a structured questionnaire made to participants based on a five points Likert scale. The tool has 40 questions that are applied in dimensions to make the assessment of consumer attitude multidimensional. The data collected are analysed with the help of the statistical procedures such as reliability analysis to test internal consistency, the exploratory factor analysis (EFA) to find out underlying constructs and the regression analysis as a method to assess the strength and direction of the relationship between the variables. The research results should provide meaningful information on behavioural factors, as well as blocks to the acceptance of digital payments. The research findings enhance the current literature in consumer behaviour, digital finance and by highlighting the most prevalent aspects that are likely to influence the consumer attitude. Moreover, the study has its practical inferences to the financial institutions and policymakers in formulating user-friendly, safe and reliable digital

payment systems, which would enhance acceptance and sustainability of digital financial services.

KEYWORDS: Digital payment systems, UPI, Card payment, Trust on Digital Payments

INTRODUCTION

The world of finances has experienced the significant shift due to the active development of digital technologies, and especially related to the area of payment systems. Electronic cash payment options like Unified Payments Interface (UPI), mobile wallets, online banking and payment by cards have completely changed the behaviour of consumers in terms of transactions. In other developing markets such as India, digital revolution plans such as Digital India and Fintech expansion have ensured that the country is quickly moving towards a cashless economy (Dahlberg et al., 2015; Kaur et al., 2020). Consumer attitude is a one of the significant factors that effects the receipt of digital payment systems and defines the future uptake and usage thereof. According to Davis (1989), his Technology Acceptance Model (TAM) separates perceived usefulness and perceived ease of use as the major factors of user acceptance of new technologies. It has always been verified that users tend to embrace digital payment systems on their condition of feeling efficiency, convenience and ease of use (Venkatesh et al., 2003; Oliveira et al., 2016). Privacy and security issues besides the factors of usability have proven to be critical determinants to consumer attitude. The perceived risks of data breaches and fraud usually prevent the use of online payment surface by users (Kim et al., 2010). On the other hand, improved security solutions and open privacy policies will lead to greater user trust. The element of trust, as such, emerges as a significant element of digital financial transactions as it diminishes the uncertainty element and creates positive attitude towards adoption of technology (Gefen et al., 2003). Moreover, the behaviour of consumers is greatly influenced by the social factors particularly in developing economies where the consumption decisions of an individual are influenced by peer use and social conventions (Venkatesh et al., 2003). Although studies conducted on these factors are numerous, it is strange to note that in most cases, the studies have been done in isolation and this has restricted the ability to gain an in-depth insight on consumer attitude.

In that regard, the current research project will consider the creation of a multidimensional model where the insights of usefulness, easy use of payment system, security and privacy, trust and social stimulus that are incorporated to examine consumer attitude regarding digital payment systems. Empirical approach adopted in the research aims at giving an all-inclusive perspective of behavioural drivers and give practical implication to the improvement of digital payment adoption.

PAST LITERATURE

The fast development of digital payment system has drawn much academic interest especially in the learning of the behavioural as well as the technological aspects that guide user adoption. Through the digital payment platform (including mobile wallets, web banking, and real time payment systems, etc.), payments have digitized transactions making them fast, convenient, and easy. Nevertheless, consumer attitude is also a noteworthy factor to the successful adoption and subsequent use of such technologies. The Technology Acceptance Model (TAM) is one of the most common theoretical frameworks that have been used in the field, the aspect that serves to determine the influence of users in the formation of user behaviour is the presence of perceived usefulness and perceived ease of use (Davis, 1989). The usefulness that is perceived is the grade to which a person believes that they are better off when they utilize a certain system and apparent ease of use is the grade to which a person puts in effort to utilize the system. Empirical research has continuously confirmed that the two constructs have a significant effect on user attitude and intention to digital payment systems (Alalwan et al., 2017). When consumers see electronic payments as easy to use, the probability of their embrace becomes significantly high.

Other than usability, other factors that have brought about critical issues to consumer perception include the security and privacy issues. In the same context of the growing frequency of cyber threats and data breaches, users tend to be fearful of making online financial transactions. Research states that the perceived risk affects user attitude in a negative manner, and strong security and privacy guarantees have favourable effects on trust and adoption (Liebana-Cabanillas et al., 2014). Thus, it is crucial to make transactions safe to boost the trust of consumers towards online payment systems. Another critical variable in consumer attitude concerning the adoption of digital payments is trust. Online transactions do not necessarily involve physical contact as opposed to traditional payment systems, and trust is an important factor in perceived uncertainty reduction. The studies indicate that trust of service providers, technology infrastructure and regulations are important factors that determine the acceptance by the users (Zhou, 2011). The increased trust levels relate to the enhanced willingness to conduct the digital financial transactions, which supports the positive consumer attitudes.

There is also social influence which is also quite important particularly in the developing economies. The Unified Theory of Acceptance and Use of Technology (UTAUT) postulates that people are sensitive to the beliefs and actions of colleagues, family, and the society in terms of implementing emerging technologies (Venkatesh et al., 2003). When the digital payments, extensive use in the context of social networks usually makes people transition to the use of such technologies, thus increasing the speed of diffusion. In addition, recent reports have indicated the significance of incorporating numerous determinants in order to be in a position to comprehend consumer behaviour. As opposed to examining factors in isolation, a multidimensional approach offers a more detailed view of the interaction of technological, psychological, and social factors to influence consumer attitude (Patil et al., 2020). The given integrated frameworks are especially applicable in the sphere of digital payments, where a set of functional advantages and perceived risks creates an impact on user behaviour. Although the body of literature is growing, there is still a necessity to conduct empirical investigations that will analytically study all these major determinants in a single model. The current research fills this gap with respect to the importance of considering the aspects of seeming ease of use, perceived usefulness, security and privacy, trust, and social influence in a single framework in examining the attitude of consumer towards digital payment systems.

RESEARCH METHODOLOGY

The research assumes a quantitative research design and convenience sampling method was adopted in order to study the predictors of consumer attitude towards the digital payment systems. The research will be grounded on the primary data gathered using the structured questionnaire created with the assistance of a 5-point Likert scale and 40 items that will measure the aspects. There are about 200 respondents which will guarantee good representation and validity of findings. Online data collection techniques are used which allow greater coverage as well as efficient data collection. In the first step, the reliability analysis will be carried out based on Cronbach's alpha to examine the internal consistency of the measurement scale. It is then followed by Exploratory Factor Analysis (EFA) was analysed to validate the underlying the factor structure and guarantee construct validity.

The appropriateness of data to perform a factor analysis is reported through the key indicators which include KMO bartlett and to measure and the Test of Sphericity given. Regression analysis was employed to examine the suggested hypotheses. The first one is an investigation of how perceived usefulness, perceived ease of use, security and privacy, and social influence impact the trust. The second model assesses how trust influences the attitude of the consumer. The relationships that are significant help in deriving the mediating role of trust. Such an

approach to methodology provides the system and empirical assessment of the determinants of consumer attitude to digital payment systems.

OBJECTIVES

- To investigate the effects of perceived usefulness, perceived ease of use, security and privacy, and social influence impact trust towards digital payment systems.
- To examine the influence of trust in consumer attitude to digital payment systems.
- To analyse the mediating position of trust among the chosen determinants and consumer attitude.
- To formulate an integrated model to describe consumer attitude towards on-line payment systems.

HYPOTHESIS

H1: Perceived ease of use, perceived usefulness, social influence, security and privacy have a significantly influence trust in digital payment systems.

H2: Trust that significantly influences the consumer attitude to digital payment interface systems.

H3: Trust mediates the relationship between the technological, social factors and consumer attitude towards digital payment systems.

ANALYSIS

Table 1
Descriptive Analysis

Statistics						
	Gender	**Age**	**Education level**	**Occupation**	**Usage Frequency**	**Annual Income**
N	200	200	200	200	200	200
Mean	1.44	2.25	2.65	2.43	2.82	2.63
Std. Deviation	.498	.995	1.160	1.049	.951	1.372

Inference

The descriptive statistics provide the summary of demographics of the respondents who have been incorporated in the study. There are 200 viable responses that have no missing values and this means that we have a complete set of responses, which can be used to conduct further analysis. The average value of the gender (1.44) indicates the comparison of respondents in a somewhat equal proportion. The mean of the age group (mean =2.25) implies that majority of the respondents lie between the mid ranges. The level of education means 2.65 indicating a medium range of educational qualifications. Likewise, occupation (mean = 2.43) and frequency of use (mean = 2.82) show the even distribution of respondents across the board with a slight bias towards their frequent use of digital payment systems. The average amount of income (2.63) indicates average income distribution. The values of the standard deviations reveal that there is a reasonable variation in the data and they are good enough to be analysed through advanced statistical analysis.

Multiple regression analysis

H1: Perceived ease of use, perceived usefulness, social influence, security and privacy have a significant impact on trust of digital payment systems

Table 2
Table showing Multiple Regression Analysis for Factors of Trust in Digital Payment Systems

Descriptive Statistics			
	Mean	**Std. Deviation**	**N**
New Trust mean score	3.2081	1.18296	200
New Perceived Ease of Use mean score	3.1633	1.15735	200

New Security & Privacy mean score	3.1417	1.16466	200
New Social Influence mean score	3.0992	1.10845	200
New Perceived Usefulness mean score	3.2292	1.21633	200

Table 3
Correlations

		Trust Mean score	Mean score of Perceived Ease of Use	Security & Privacy Mean score	Social Influence Mean score	Perceived Usefulness Mean _score
Pearson Correlation	Trust Mean score	1.000	.970	.959	.960	.977
	Perceived Ease of Use mean score	.970	1.000	.964	.965	.969
	Security & Privacy mean score	.959	.964	1.000	.966	.961
	Social Influence mean score	.960	.965	.966	1.000	.956
	Perceived Usefulness mean score	.977	.969	.961	.956	1.000
Sig. (1-tailed)	Trust Mean score	.	.000	.000	.000	.000
	Perceived Ease of Use mean score	.000	.	.000	.000	.000
	Security & Privacy mean score	.000	.000	.	.000	.000
	Social Influence mean score	.000	.000	.000	.	.000
	Perceived Usefulness mean score	.000	.000	.000	.000	.

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.983[a]	.966	.966	.21935	.966	1398.232	4	195	.000	1.798

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	269.095	4	67.274	1398.232	.000[b]
	Residual	9.382	195	.048		
	Total	278.477	199			

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.035	.046		.746	.456		
	New Perceived Ease of Use mean score	.272	.066	.266	4.119	.000	.042	24.084
	New Security & Privacy mean score	.050	.061	.049	.814	.417	.048	21.008
	New Social Influence mean score	.156	.063	.146	2.484	.014	.050	20.072
	New Perceived Usefulness mean score	.518	.057	.533	9.082	.000	.050	19.943

Inference

The regression analysis model examined the influence of perceived usefulness, perceived ease of use, security and privacy, and social influence on trust in digital payment systems. According to the model summary, the model demonstrates strong the explanatory power is very high, 0.983 is the R value and 0.966 is the R^2. This means that the model fits fairly well (96.6 percent) with the independent variables that were chosen. Durbin Watson is at 1.798 indicating that there are no significant problems in autocorrelations. Other findings of the ANOVA are also useful in confirming that the total regression equation is not insignificant statistically ($F = 1398.232$, $p = 0.001$), which means that the independent variables collectively have a significant effect on overall affects trust significantly.

Regarding the predictors on the individual level, the positive effects of perceived usefulness ($b = 0.533$, $p < 0.001$) and perceived ease of use ($b = 0.266$, $p < 0.001$) were considered highly important to trust. The social influence ($b= 0.146$, $p=0.014$) also had also exhibited a positive and statistically significant effect, despite the fact that comparatively it was weaker. Nevertheless, it was not found that security and privacy ($b = 0.049$, $p = 0.417$) was a found to be strong predictive and significant predictor variable of trust. Although the model fits very well, the diagnostics of collinearity indicate the severe multicollinearity among the independent variables (VIF > 10) meaning the independent predictors are closely related. Therefore, coefficients must be interpreted with caution. In general, the results confirm the hypothesis that any of the factors related to key technological and social factors has considerable effects on the occurrence of trust, and perceived usefulness has proven that it is the most important factor.

Regression Model II

Table 4

Showing Multiple Regression Analysis for Determinants of Trust

Model Summary[b]										
Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.969[a]	.938	.938	.28932	.938	2997.990	1	198	.000	1.861

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	250.950	1	250.950	2997.990	.000[b]
	Residual	16.574	198	.084		
	Total	267.523	199			

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.111	.059		1.870	.063		
	New trust mean score	.949	.017	.969	54.754	.000	1.000	1.000

Collinearity Diagnostics[a]					
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	New trust mean score
1	1	1.939	1.000	.03	.03
	2	.061	5.616	.97	.97

Inference

The regression model was developed to examine the influence of trust on consumer attitude towards electronic payment platforms. The model summary indicates with the strong explanatory power, with R and R^2 with the values of 0.969 and 0.938 respectively. It is suggesting that the trust explains approximately 93.8% of the variation in consumer attitude. The Anova results further reveals that the overall model is statistically significant (where F = 2997.990, $p<0.001$) by indicating that the trusts play a important role in determining consumer attitude.

The coefficient results show that the trust is having a strong and positive effect on consumer attitude where Beta = 0.969, $p<0.001$. The unstandardized coefficient where B = 0.949, that suggests that a one-unit increase in trust leads to a corresponding increase in consumer attitude. The high t-value 54.754, further supports the strength and reliability. Addition to this, the collinearity diagnostics (VIF = 1.000) confirm that there are no multi-collinearity concerns. The findings clearly establish trust as important determinant influencing consumer attitude towards electronic payments systems or services

Hypothesis Analysis

Variable	Relationship	Hypothesis	Result	Interpretation
IV → Trust	Significant	H1: Perceived ease of use, perceived usefulness, social influence, security and privacy have a significantly influence trust in digital payment systems.	Accepted	Strongest predictor
Trust → Attitude	Significant	H2: Trust that significantly influences the consumer attitude to digital payment interface systems.	Accepted	Core driver
Trust → relationship between determinants and attitude	Partially Significant	H3: Trust mediates the relationship between the technological, social factors and consumer attitude towards digital payment systems.	Partially accepted	There is a moderating effect of trust between the determinants and consumer attitude of digital payment systems.

RESULTS AND DISCUSSION

The findings of the study provide strong evidence regarding the factors influencing consumer attitude towards digital payment platforms. The regression results indicate that perceived usefulness, perceived ease of use, and social influence significantly contribute to the development of trust, whereas security and privacy were not found to have a statistically significant effect.

Perceived usefulness turned out to be the most significant variable among the variables, indicating that consumers tend to trust digital payment platforms more when they believe that they are efficient and useful in the purpose of transactions. The significant role of perceived ease of use highlights the importance of simplicity and user-friendly design in building consumer confidence.

Social influence also shows a positive effect on trust, showing that peer behaviour, trends in society, and exposure to the digital world are important factors affecting user adoption. The insignificant impact of security and privacy implies that the current security measures must have already provided some level of confidence to users.

Furthermore, the analysis confirms that trust has a strong and positive influence on consumer attitude, reinforcing its critical role in digital payment adoption. The findings agree with earlier research that has highlighted the significance of perceived usefulness, ease of use and trust in technology acceptance models.

DISCUSSION ON MEDIATION

The mediating role of trust was examined by analysing the relationship between the independent variables and consumer attitude. The results indicate that perceived usefulness, perceived ease of use, and social influence significantly influence trust, which in turn has a significant effect on consumer attitude. This confirms that trust functions as an significant mediating variable of the model. However, since security and privacy did not demonstrate a

significant relationship with trust, the mediation effect is only partial. This suggests that while trust plays a crucial role in transmitting the influence of key determinants, certain factors may also directly affect consumer attitude without the involvement of trust**.** Overall, the findings establish trust as a central mechanism linking technological and social factors with consumer attitude towards digital payment platforms.

MANAGERIAL IMPLICATIONS

The findings of the study offer valuable insights for financial institutions, fintech companies, and policymakers aiming to enhance the adoption of digital payment platforms. Perceived usefulness proved to be the most powerful factor of trust, which shows that service providers need to concentrate on enhancing efficiency, speed, and the general functionality of digital payment systems. The perceived ease of use also contributes greatly to trust building and so interfaces should be user friendly, easy to navigate and less complex to enable users with different degrees of technological literacy to access it.

The high influence of social influence is an indication that awareness campaigns, peer recommendations and digital literacy programs can be effective in encouraging adoption. The user engagement can be further enhanced by marketing strategies based on social media and influencers. Security and privacy were not found to be significant in this research but are important to ensure that users have confidence. The long-term trust and adoption can only be maintained through continuous investment in safe infrastructure and a clear communication of safety measures.

CONCLUSION

The paper investigated the main factors influencing consumer attitude to digital payment platforms, combining the perceptions of usefulness, perceived ease of use, security and privacy, social influence, and trust into a single model. The results indicate that social influence, perceived ease of use, and the perceived usefulness are the most important factors that impact trust, and security and privacy are not that influential. Perceived usefulness was found to be the most significant predictor of trust among the variables and, again, functional benefits are significant in terms of the perception of the users. The findings also affirm that trust is a critical factor in adopting digital payments as it has a strong and positive impact on consumer attitude. The mediation analysis shows that trust is an important linking mechanism by revealing a partial mediation between the determinants and consumer attitude. Altogether, the research adds to the current body of knowledge by offering a multidimensional approach toward consumer behaviour in digital finance. Its implications of the results have practical implications to improve user trust and increase the usage of digital payment platforms by enhancing usability, functionality, and social engagement.

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