ANALYSIS OF RETAILER'S BEHAVIOURAL INTENTION TO USE MOBILE PAYMENT: USING THE UTAUT (UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY) MODEL

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ABSTRACT

In this evolving modern world, technology is involved in all fields of human life. Mobile payment has become essential not only for consumer convenience but also for retailers' business growth. Several studies have been undertaken to highlight the aspects that contribute to the establishment of "Behavioural Intention" among consumers for adopting mobile payments. Still, no studies are available in the context of India, as per the review of literature, which demonstrate the factors responsible for "Behavioural Intention" of retailers to adopt and use mobile payment in their day-to-day business. This study makes use of a "Five-point Likert Scale" to collect data from Indian retailers and establish a relationship between the selected variables for the study to fill the existing research gap present in the context of Indian retailers. Apart from UTAUT, "Performance Expectancy," "Effort Expectancy," "Social Influence," "Facilitating Conditions," "Behavioural Intention," "Perceived and Security" is considered as one variable as there is always a security risk involved in using any digital technology. It is found that only "Effort Expectancy" and "Perceived Security" have a significant relationship with the Behavioural Intention of a retailer to use mobile payment. At the same time, "Performance Expectancy,"

"Facilitating Condition," and "Social Influence" do not show any relationship with the "Behavioural Intention" of retailers toward mobile payment.

Keywords: "Performance Expectancy (P.E)", "Effort Expectancy (E.E.)", "Social Influence (S.I.)", "Facilitating Conditions (F.C.)", "Behavioural Intention (B.I)", and "Perceived Security (P.S)".

Using the UTAUT (Unified Theory of Acceptance and Use of Technology) Model"

INTRODUCTION

In the present world, there is cut-throat competition in every field, including business. Technology plays a decisive role in keeping one ahead of others. Mobile payment apps have brought flair to the method of payments, especially in small businesses. In India, more than fifty 'third-party' applications are operating under the UPI system (Best Digital Payment Apps in India, 2021). In this study, we will examine the impact of mobile payment apps on small businesses in India. We will explore their benefits and challenges and analyze their overall effectiveness as a payment method. The aim of this study is to provide valuable insights for small business owners and entrepreneurs looking to integrate mobile payment apps into their operations. With the increasing popularity of smartphones and the convenience they offer, it is crucial for businesses to adapt to this new trend in consumer behavior. UTAUT The model demonstrates the factor that motivates a retailer to use mobile payment apps instead of physical transactions in day-to-day business activities.

In this study, we have tried to determine the factors that motivate a retailer to use mobile payment apps using UTAUT. This research also examines the relationship between retailers' perceived security and behavioral intention when utilizing mobile payment applications on mobile phones.

Literature Review

Researchers and academicians have used UTAUT and extended the UTAUT model to find out the factors that motivate an individual to adopt and use mobile apps (Palau-Saumell et al., 2019; Patil et al., 2020; Tam et al., 2018). However, most of these studies are conducted on consumers. For example, (Alam et al., 2021; Handarkho & Harjoseputro, 2020; Karjaluoto, Heikki; Shaikh, Aijaz A.; Saarijärvi, Hannu; Saraniemi, 2019; Sabri Alrawi et al., 2020; Yang et al., 2021). Likewise, the study was conducted in Thailand, adopting three approaches, namely "extensive review of the literature, expert interviews, and a field survey", and it is found that this study shows the same relationship as the UTAUT model depicts (Bhatiasevi, 2016). Very few studies are present when we look for studies that use the UTAUT model to find out the factors responsible for small entrepreneurs or vendors adopting Mobile Payment apps in the world and India in day-to-day business.

A study conducted on small and medium entrepreneurs in Bali using UTAUT2 states that MSMEs' interest in adopting mobile payment apps is influenced by pricing, hedonic motivation, promotion, and technical security (Yuniarta & Purnamawati, 2021). In similar research, it was discovered that the "enabling environment" and "business model" are the primary determining variables impacting the intention of the SME sector in Palestine to use mobile banking (Mujahed et al., 2021). Likewise, the research was carried out in Bangladesh on bKash agents (Microentrepreneurs), and the study's findings demonstrate that, among other things, pricing value highly impacts "Behavioural Intention" to accept and use mobile financial services (Rahman et al., 2020). Similarly, according to the findings of the research on the use of mobile apps: "ease of use," "Perceived Security," and trust significantly influence entrepreneurs' intentions to use mobile apps (Khraim, 2021).

Likewise, the study was conducted in India using UTAUT, stating that the mobile banking intention of an entrepreneur mediates the relationship between "Effort Expectancy" and use behavior, "Performance Expectancy" and use behavior and "Social Influence" and use behavior (Varma, 2018). However, when we look for the studies conducted on finding the factors responsible for adopting mobile payment apps for vendors, no study is found. In this study, we have used the UTAUT model to determine the factors motivating Retailers/ vendors to use Mobile payment apps in India.

UTAUT ("Unified Theory of Acceptance and Use of Technology"): - According to UTAT, "Behavioural Intention" of the individual is an outcome of "Performance Expectancy," "Effort Expectancy," and "Social Influence" (Viswanath & Morris, 2003). This "Behavioural Intention", along with "Facilitating Conditions", results in user behavior (Viswanath & Morris, 2003)."Performance Expectancy" (P.E.): - "The

degree to which an individual thinks that adopting a system will increase their outcomes in job performance is called Performance Expectancy" (P.E.). Users develop expertise and comfort when they operate a system directly (Gary Hackbarth, Varun Grover, 2003). Recent studies across the globe state that P.E. plays a significant role in determining "Behavioural example, Performance Intention". For Expectancy (P.E.) affects mobile commerce utilization among rural entrepreneurs (Samad 2021). Performance Expectancy et al., positively influences Behavioural Intention to use mobile-commerce services among every smartphone user (Sabri Alrawi et al., 2020). Performance Expectancy positively affected users' inclination to utilize online banking in Sudan (Ghalandari, 2012). However, when we look for the same relationship in the case of Vendor and usage of payment apps, we do not find any study in the Indian context. Hence, "the following hypothesis is proposed."

H1: "Performance Expectancy (P.E.) has a positive significant relationship with Behavioural Intention".

"Effort Expectancy" (E.E.): "The degree of ease associated with the use of the system" (Viswanath & Morris, 2003). E.E. is the critical factor that helps in determining the intention of an individual to use new technology. Past literature on M-payment "Effort Expectancy" has a significant relationship with "Behavioural Intention" to adopt M-payment (Al-Saedi et al., 2020; Alalwan et al., 2017). Likewise, many studies across the world demonstrate the relationship between "Effort Expectancy" and "Behavioural Intention" for adopting mobile banking from a consumer perspective (Phan et al., 2020; Sabri Alrawi et al., 2020; Teo et al., 2015). However, when we look for studies from the retailer/vendor side, not many studies can depict the relationship between E.E. and "Behavioural Intention." A study on Malaysian retailers states the relationship between E.E. and "Behavioural Intention" for adopting mobile payments (Ariffin et al., 2020). In the Indian context, we can construct and test hypotheses based on previous studies undertaken.

H2: "There is a significantly positive relationship between E.E. and the behavioural intention of retailers towards the adoption of mobile payment."

"Social Influence" (S.I.):"The degree to which an individual perceives that important others believe he or she should use the new system" (Viswanath & Morris, 2003). In the past, many studies (Liu et al., 2019; Migliore et al., 2022; Oliveira et al., 2016; Wei et al., 2021) have been conducted to determine the relationship of S.I with the "Behavioral Intention" of an individual from a consumer perspective. However, from another side of the window from retailers/vendors/small entrepreneurs, we find very few studies demonstrating the role of "Social Influence" in motivating them to adopt mobile payment in their day-to-day business transactions. The study was conducted on Malaysian retailers, and it was found that S.I does have a significant relationship positive with "Behavioral Intention" (Ariffin et al., 2020). Similarly, a study on micro-entrepreneurs depicts the significant positive relationship between "Social Influence" and continuance intention (Odoom & Kosiba, 2020). Likewise, the study was conducted on rural entrepreneurs in Malaysia, stating that "Social Influence" is the most influential factor in mobile commerce utilization (Samad et al., 2021). In the Indian context, we can construct and test hypotheses based on previous studies undertaken.

H3: "Social influence posits a positive, significant relationship with the behavioral intention of a retailer."

"Facilitating Conditions""(F.C.): "The degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system" (Viswanath & Morris, 2003). The study conducted in China on retailers states the direct relationship between the Facilitating Condition (F.C.) and "Behavioural Intention" to adopt mobile payment (Khan & Ali, 2018). Likewise, a study conducted in Indonesia on retailers states that "government regulations, trust on the platform, retailer's engagement, brand value, network externalities, and retailer's satisfaction all influence the retailer's intention to adopt mobile payment" (Fitriani et al., 2020). Similarly, the study conducted on Malaysian merchants states that the relationship between "Facilitating Conditions," including "decreased processing time and fees, convenience, and enhanced payment security," plays a significant role in merchants adopting mobile payment (Moghavvemi et al., 2021). In the Indian context, we can construct and test hypotheses based on previous studies undertaken.

H4: "Facilitating Conditions posit a positive and significant relationship with the Behavioral Intention of a retailer.

"Perceived Security" (P.S.): Security is one of the significant elements that motivate or demotivate an individual to use mobile payment. Security is one of the major concerns in the mobile payment system (Wang et al., 2016). Research conducted in the restaurant industry on consumers states that security is crucial for the adoption of mobile payment by consumers (Khalilzadeh et al., 2017). Similarly, a study was conducted in Jordan on employees in the identified ministries, and it was found that there exists a relationship between security and "Behavioral Intention" to adopt mobile payment (Al-Okaily et al., 2020). Likewise, research conducted on Malaysian retailers shows that "Perceived Security" and "Behavioral Intention" to adopt mobile payment have a significant relationship (Ariffin et al., 2020). In the Indian context, we can construct and test hypotheses based on previous studies undertaken.

H5: "Perceived security posits a positive, significant relationship with behavioral intention to adopt mobile payment.

"Behavioural Intention" (B.I.): According to (Venkatesh et al. 2003), BI is the outcome of "Facilitating Conditions," "Social Influence," "Effort Expectancy," and "Performance Expectancy." There are studies conducted in the past depicting the same in different contexts (Al-Okaily et al., 2020; Al-Saedi et al., 2020; Migliore et al., 2022; Moorthy et al., 2020; Palau-Saumell et al., 2019; Puriwat & Tripopsakul, 2021; Yawised

Relationship Tested: -





et al., 2022). This study article seeks to assess the suitability of the UTAUT in the context of India, particularly regarding retailers' inclination to utilize mobile payment methods.

Research Methodology

Research was conducted on retailers in India. In this study, a 5-point Likert scale adopted from (Viswanath & Morris, 2003) was used with required modifications according to the study. Apart from UTAUT variables, the relationship of "Perceived Security" with "Behavioral Intention" was also tested by PLS-SEM analysis on smart PLS 3.0. Convenient sampling was done for this study. A total of 300 questionnaires were distributed, and 260 were received back. Out of these, 201 were used in the study as the remaining questionnaires were either wrongly filled or incomplete in some way. The reliability of the questionnaire was checked as given below: - Values of "Cronbach alpha," "Rho_A," "Composite reliability," and "AVE" are above the acceptable limit of \geq "0.60," \geq "0.70," \geq "0.700," and \geq "0.50," respectively (C. Jain, 2019; Hair et al., 2019; van Griethuijsen et al., 2015). Therefore, the scale utilized in the provided research study is dependable and has a satisfactory level of convergent validity.

Result and Discussion:

The research study conducted using the UTAUT model aims to identify the elements that contribute to the development of the "Behavioural Intention" of retailers in India. In addition to this, the relationship of "Perceived Security" (P.S) with "behavior intention" is also established. Figure 2, given below, shows the relationship of the "Behavioural Intention" of retailers with "Effort Expectancy," "Social Influence," "Facilitating Condition," "Performance Expectancy," and "Perceived Security."

Measurement of Scale

	"Cronbach's Alpha"	"Rho_A"	"Composite Reliability"	"Average Variance Extracted (AVE)"
B.I.	.706	.712	.836	.631
E.E.	.819	.823	.880	.647
F.C.	.810	.816	.888	.725
P.S.	.690	.729	.802	.510
P.E.	.787	.789	.862	.611
S.I.	.791	.817	.864	.617

Table 1: "Construct Reliability" and "Validity"

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Fig. 2: (Path Analysis)

Source: "The Author"

Discriminant Validity: The discriminant refers to how different constructs are from one another. The discriminant validity test can be depicted by the low level of collinearity between the different constructs of the proposed model. It can be measured by using "HTMT," "Cross Loading," and "Fornell-Larcker Criterion."

HTMT: The value below 0.85 of HTMT depicts minimum discriminant validity and is acceptable. The values in the table range from 0.462 to 0.846, hence acceptable (Somjai et al., 2019).

Table 2: Heterotrait-Monotrait Ratio

	"B.I."	"E.E."	"F.C."	"P.S."	" P.E. "	"S.I."
B.I.						
E.E.	.687					
F.C.	.715	.679				
P.S.	.684	.462	.562			
P.E.	.714	.833	.846	.546		
S.I.	.668	.687	.70 7	.664	.787	

"Fornell-Larcker Criterion": It states that if the initial value on the diagonal of a matrix is larger than the values of the other constructs being studied, then the model does not have any issues with "discriminant validity." Table 3 given below depicts the same.

Table 3: "Fornell-Larcker Criterion"

	"B.I."	"E.E."	"F.C."	"P.S."	" P.E. "	"S.I."
B.I.	0.795					
E.E.	0.540	0.804				
F.C.	0.543	0.562	0.852			
P.S.	0.494	0.392	0.464	0.714		
P.E.	0.542	0.674	0.675	0.430	0.782	
S.I .	0.504	0.559	0.567	0.528	0.631	0.785

Cross-Loading: Constructs that have many significant loadings are termed crossloading (Hair Jr. et al., 2017). "Acceptable discriminant validity would typically be assumed if the number in the diagonal cell for each column is greater than any of the other numbers in the same column" (Kock, 2015).

Table 4: "Cross Loading"

	"B.I."	"E.E."	"F.C."	"P.S."	"P.E."	"S.I."
B.I.1	0.769	0.542	0.479	0.361	0.481	0.378
B.I.2	0.871	0.440	0.412	0.419	0.455	0.401
B.I.3	0.737	0.277	0.396	0.403	0.341	0.429
E.E.1	0.389	0.828	0.428	0.318	0.545	0.459
E.E.2	0.442	0.764	0.414	0.316	0.533	0.409
E.E.3	0.391	0.813	0.382	0.201	0.490	0.396
E.E.4	0.495	0.811	0.557	0.403	0.588	0.520
F.C.1	0.428	0.453	0.814	0.416	0.600	0.506
F.C.2	0.495	0.515	0.906	0.393	0.610	0.480
F.C.3	0.463	0.464	0.832	0.379	0.516	0.466
P.S.1	0.430	0.391	0.372	0.806	0.366	0.437
P.S.2	0.424	0.375	0.543	0.832	0.414	0.554
P.S.3	0.255	0.138	0.130	0.611	0.185	0.217
P.S.4	0.254	0.119	0.158	0.571	0.197	0.195
P.E.1	0.388	0.505	0.518	0.285	0.746	0.426
P.E.2	0.443	0.494	0.545	0.271	0.789	0.3 77
P.E.3	0.386	0.550	0.538	0.380	0.825	0.5 77
P.E.4	0.464	0.555	0.506	0.403	0.765	0.588
S.I.1	0.443	0.421	0.447	0.503	0.533	0.820
S.I.2	0.451	0.514	0.524	0.364	0.571	0.856
S.I.3	0.285	0.372	0.372	0.399	0.371	0.637
S.I.4	0.377	0.444	0.425	0.402	0.478	0.810

The values that are found in the diagonal column are the highest among all of the values found in the same column. The study does not have any issues with discriminant validity, so there is no concern with it. Apart from these three techniques, VIF is also used to check the collinearity issue present among the constructs taken in the study.

VIF: (Hair Jr. et al., 2017), the VIF statement indicates that there is substantial collinearity or multicollinearity between independent constructs. The value of the VIF that is proposed for the study falls between the range of 1.473 to 2.618, which is below the threshold of 3.3 and is deemed appropriate for factor-based PLS-CM (Kock, 2015).

Table 5: "VIF"

Constructs	"Behavioural Intention"
B.I.	
E.E .	1.988
F.C.	2.063
P.S.	1.473
P.E.	2.618
S.I.	2.033

R2: "R2 shows how external factors explain endogenous variables."

"R2 values of 0.75, 0.50, and 0.25 are large, moderate, and small" (Hair et al., 2019).

The value of "Behavioural Intention" is 0.438, which is above 0.25 and below 0.50; hence, it is acceptable."

F2: Higher (f2) values indicate a greater effect of independent constructs. Cohen (1988) defines 0.02 as a modest influence, 0.15 as medium, and 0.35 as high. The study found that "Social Influence" and "Performance Expectancy" have nearly no influence on "Behavioural Intention" as the values for S.I. and P.E. are 0.005 and 0.009, respectively, which are less than 0.02. In contrast, the other constructs (E.E.), (F.C.), and (P.S.) have a modest influence, with values of 0.044, 0.031, and 0.063, respectively.

Table 6: "F squared"

"Constructs"	"Behavioural Intention"
B.I.	
E.E.	.044
F.C.	.031
P.S.	.063
P.E.	.009
S.I.	.005

Model 2: - The second model is a structural model created in Smart PLS-3.0 using bootstrapping (PLS-SEM). Bootstrapping involves replacing a large sample with a smaller one. This procedure calculates bootstrap standard error, which helps determine "T-values." These T-values compute the Path Coefficient P-Values. These P-Values test the hypothesis that establishes the link between the two variables. Figure 3 demonstrates the relationships of the study's variables.

Hypotheses Testing: The proposed research formulates five hypotheses utilizing the UTAUT Model. Hypotheses are examined to see how research factors relate.

H2 and H5 have P-Values of 0.022 and 0.001, respectively, below the acceptable cutoff of 0.05, making them feasible and accepted hypotheses. In this study, "Perceived Security" and "Effort Expectancy" positively affect a retailer's "Behavioural Intention" to accept mobile payments. The P-Values for H1, H3, and H4 are .298, .394, and .071, respectively, which are all higher than .05, indicating that none of the three hypotheses is true. Thus, this research found no relation between the retailer's "Behavioural Intention" to accept mobile payments and "Performance Expectancy," "Facilitating Conditions," or "Social Influence."

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Fig. 3: Bootstrapping Procedure

Source: "The Author"

Table 7: Hypotheses Testing

	"β"	"Standard Deviation"	"T Statistics (O/STDEV)"	"C.I at 5%"	"C.I at 95%"	"P Values"	"Decision"
E.E> B.I.	.220	0.097	2.292	0.059	0.380	0.022	Accepted
F.C> B.I.	.190	0.105	1.806	0.007	0.350	0.071	Not Accepted
P.S> B.I.	.228	0.068	3.362	0.118	0.342	0.001	Accepted
P.E> B.I.	.117	0.113	1.040	-0.061	0.315	0.298	Not Accepted
S.I> B.I.	.079	.090	.853	073	.225	.394	Not Accepted

DISCUSSION

The study found a positive relationship between Effort Expectancy and retailer Behavioral Intention to use mobile payment. This finding is consistent with prior studies (Agarwal, 2020; Ariffin et al., 2020; Khalilzadeh et al., 2017). Apart from E.E., Perceived Security also shows a significant positive relationship with the Behavioral Intention of retailers to use Mobile payment, which is similar to the previous study (Ariffin et al., 2020). Various global research has been undertaken to establish the relationship between the two in various sectors (Al-Okaily et al., 2020; Khalilzadeh et al., 2017). However, in this study, it is found that Performance Expectancy, Facilitating Conditions, and Social Influence do not have a relationship with the Behavioral Intention of the retailer to use mobile payment, which contradicts the previous studies conducted across the globe (Ghalandari, 2012; Odoom & Kosiba, 2020; Sabri Alrawi et al., 2020; Samad et al., 2021).

CONCLUSION

In the past, studies have been conducted across the globe, as well as in India, to determine the factors resulting in "Behavioural Intention" using UTAUT for consumers. However, not many studies have been presented that demonstrate the factors contributing to the development of "Behavioural Intention" in retailers to use mobile payments in their daily business transactions. In the given study, it is found that only "Effort Expectancy" contributes to the development of the "Behavioural Intention of retailers to use mobile payment". This is unlike the studies conducted on consumers, where "Behavioural Intention" is the result of "Performance Expectancy", "Facilitating Condition", and "Social Influence". Additionally, the relationship of "Perceived Security" with "Behavioural Intention" is established, which is well supported by previous studies conducted across the globe. Hence, it is concluded that the factors responsible for the development of "Behavioural Intention" are different for retailers than for consumers.

Limitations of the Study: In the study, demographic factors are disregarded, which may affect the results of the study.

Future Scope of the Study: In the study, it is found that "Performance Expectancy," "Facilitating Condition," and "Social Influence" do not have a significant relationship with "Behavioural Intention." So, future researchers can research to find out why they do not have a significant relationship with the "Behavioural Intention" of retailers to use mobile payment in their day-to-day business. Future studies may be conducted to explore this further.y be conducted on a particular gender or segment of retailers.

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