

# VISITOR EXPERIENCE TOWARDS DIGITAL PAYMENTS AMONG TOURISTS

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### Abstract

The study aims to examine the impact of various constructs of UTAUT-2 on tourists' behavioural intention to use digital payment services. The study also attempted to examine the impact of usage behaviour on financial strength of the tourists. Data for the study has been collected from tourists of Uttar Pradesh, India. The study has used Interview schedule as the main data collection. The collected data has been analysed through SPSS 26.0 and AMOS 26.0. The findings of the study led to the conclusion that all constructs of UTAUT-2 have a significant and positive impact on their behavioural intention to use digital payment services. The findings of this study imply that digital payment services are an effective tool for ensuring the financial strength of the tourists. The findings presented in this study are highly valuable for policymakers, business enterprises and academicians working in the field of digital payment services. This study provides a more comprehensive understanding of how people adopt and use technology, as well as the consequences of their actions. Finally, this study adds to the limited literature on the adoption and usage behaviour of digital payment apps in the context of Indian tourists.

**Keywords:** UTAUT-2, Digital Payment Services, Effort Expectancy, Performance Expectancy, Social Influence, Price Value, Promotional Offers, Facilitating Conditions, Habit, Behavioural Intention, Use Behaviour, Financial Strength.

## 1. INTRODUCTION

Developments in information and communication technology (ICT) has driven innovations in a variety of fields, including business, economics, education, and health care, due to which, smart technologies and smart phones have become indispensable in our lives (Al-Okaily et al., 2020). As a result of the growing number of mobile phone users and simple Internet access, digital payments have evolved. Digital payment is a novel invention that includes financial transactions between two or more persons an online or digital platform. The development of mobile financial services as a computer-assisted technology has created a considerable interest in money mobility, especially in developing nations (Awunyo-Vitor, 2016). Financial services, formerly, only available at banking institutions have now made their way to our homes and phones due to digital financial services (George & Sunny, 2021). The shift from traditional to digital financial transactions has resulted in greater transparency along with economic growth (Sehwail & Bahou, 2017). As a result of this shift, financial transactions have turned out to be more handy and trouble-free, and have extended to a wider population (Reiss, 2018).

Digital payment services, which have been made feasible by the advancement of ICT, can offer assistance by providing an alternate solution to traditional payment issues (Al-Okaily et al., 2020). For example, electronic payment systems include various resourceful features that assist both consumers and organizations in overcoming traditional payment issues, such as long queues, traffic jams, ignorance, or delayed payment procedures. By using digital payment services, transactions can be completed quickly and effortlessly with any equipped smartphone (Pal et al., 2015). According to Sobti (2019) digital payment services provide consumers with various advantages, including one-click payment, convenience in managing petty expenses, discounts and cashback schemes and most importantly, security. Several most commonly used digital payment services are Google Pay, Apple Pay, Paytm, PayPal, Amazon Pay, etc. offering a number of services such as utility payment, travel ticketing, recharges and many others (George & Sunny, 2021). Studies indicate that people from all socioeconomic backgrounds and demographics use digital payment services for a variety of reasons.

Many previous researches have been conducted to examine the adoption of digital payment services by small and medium enterprises (Najib & Fahma, 2020), by students (Jaradat et al., 2014; Iradianty & Aditya, 2021), by retailers (Jiang et al., 2021); in the public sector (Treiblmaier et al., 2004); in the hospitality business (Nuryyev et al., 2021). However, the question remains unanswered as to whether tourists can accept and use these services. Another unrequited problem is how adoption of these services will be helpful in fostering the financial strength of the tourists. Tourists in underdeveloped nations, are almost entirely compensated in cash. The rural tourists suffer significantly as a result of cash constraints. Cash is expensive to collect and transfer, and it could be lost or mishandled. It also takes a long time to transmit, keeping tourists wait days or even weeks for payment. Digital payment services can help tourists save some money and reinvest it in their living by letting them to get paid for their services instantly, accurately, conveniently and safely (Asia-Pacific Economic Cooperation (APEC), 2017). Consequently, the current study aims to examine whether behavioural usage of digital payment services will influence the financial strength of the tourists.

In the study of user acceptability and adoption of new technology innovations, various conceptual models have been established, each having a specific approach and applied in different contexts and notions such as social cognitive theory, innovation diffusion theory (IDT) and TAM. The current study has used UTAUT-2 model as a fundamental model and attempted to examine the precedents of behavioural intention and use behaviour of tourists towards digital payment services. The study has incorporated promotional offers (PO) as a new construct to examine whether various offers and cashbacks provided by digital payment companies have any direct influence on the behavioural intention of respondents to use digital payment services. The construct hedonic motivation, on the other hand, has been removed from this theoretical model due to its intrinsic qualities, which are incompatible with the study's context. Hedonic motivation, is the delight or enjoyment derived from the use of technology (Venkatesh et al., 2012). The respondents in this study are more likely to use technology to help them

manage their finances rather than for enjoyment or pleasure. This study has targeted the tourists of Uttar Pradesh, India.

Therefore, the research questions for this study are:

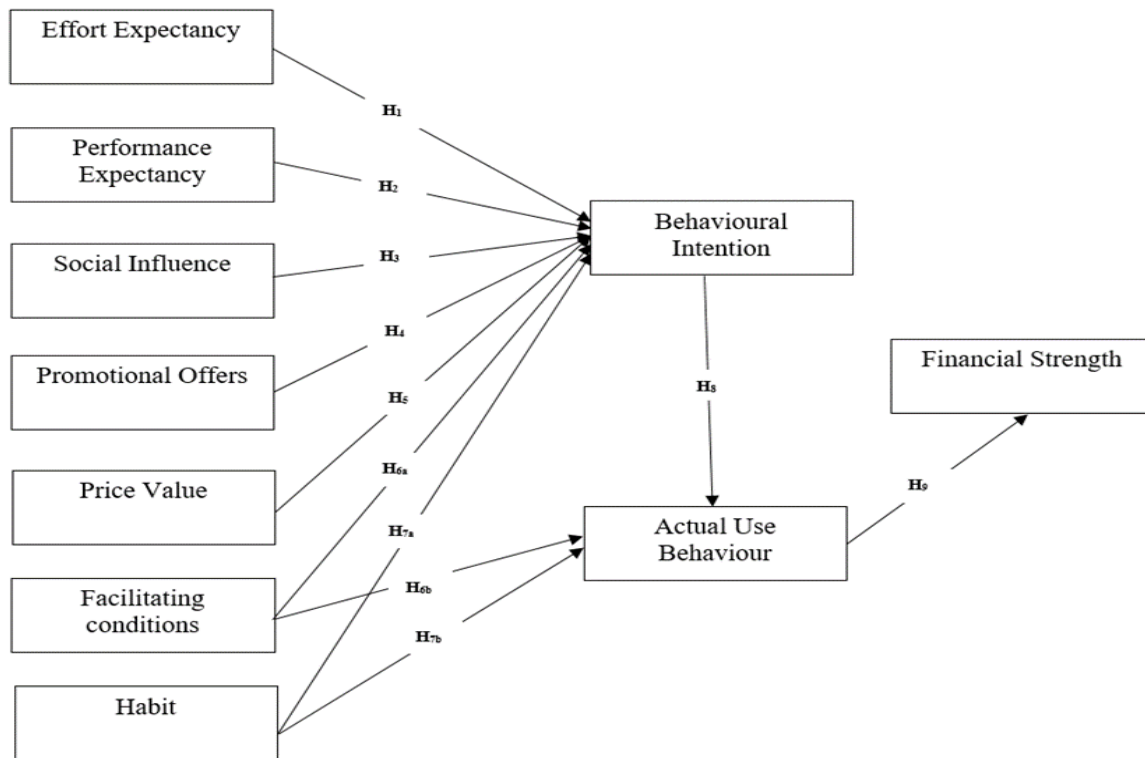
- 1) What are the various factors that influence the behavioural usage intention of digital payment services among the Indian tourists?
- 2) Whether promotional offers have a significant and direct influence on behavioural intention (BI), along with other constructs in the literature?
- 3) Does actual usage behaviour of digital payment services influence financial strength?

## 2. LITERATURE REVIEW

### **Conceptual framework and hypothesis development:**

This study has used modified UTAUT-2 model as a foundation for building the conceptual framework, because of its sturdiness and ability to explain the power of variation in usage intention and usage behaviour. The UTAUT model was developed using eight research models as a basis, namely, theory of reasoned action, technology acceptance model, hybrid model TAM–TPB, motivational model, theory of planned behavior, model of PC utilization, innovation diffusion theory and social cognitive theory (Venkatesh et al., 2003). Because the first UTAUT model was created to study technology use and acceptance by employees, it was not appropriate for consumer technologies. However, with the rise of consumer technologies, it's more important than ever to comprehend UTAUT in a consumer-centric perspective (Venkatesh et al., 2012). Venkatesh et al. (2012) presented UTAUT-2, as an expansion of UTAUT (Venkatesh et al., 2003) that includes hedonic motivation, price value, and habit in addition to the existing four components of performance expectancy, effort expectancy, social influence, and facilitating conditions. UTAUT-2 incorporates numerous recent advances in consumer technology adoption studies (Satama, 2014) and has better prediction validity in the context of technology consumption (Venkatesh et al., 2012).

The UTAUT-2 model has been used in a variety of scenarios in previous studies, including acceptance of mobile banking in Islamic banks (Raza et al., 2019), mobile app based shopping (Tak & Panwar, 2017), mobile banking (Alalwan et al., 2017; Kwateng et al., 2019; Baptista & Oliveira, 2015; Rahi et al., 2019), adoption of e-learning systems (El-Masri & Tarhini, 2017), adoption of social network sites (Herrero & San Martin, 2017), tourist adoption of mapping apps (Gupta et al., 2018), adoption of electronic health record portals (Tavares et al., 2018), and adoption of lecture capture system (Farooq et al., 2017) etc. However, there are few studies which try to analyse the adoption of technology in the context of tourists. Therefore, the present study is an attempt to address these research gaps in technology adoption. The UTAUT-2 model proposed by Venkatesh et al. (2012) is used in this study to understand the acceptance and utilisation of digital payment services among the Indian tourists (Figure 1).



**Figure 1: The Proposed Model**

Source: The Authors

### **2.1 Behavioral intention (BI):**

The intensity of one's intention to undertake a particular behaviour, such as using an information system, is defined by BI (Fishbein & Ajzen, 1980). In the TAM model, a person's BI to use the system is directly influenced by his attitude towards using the system and their subjective perception that using a given technology will improve their work performance. According to the UTAT model, BI to use the system is directly determined by performance expectancy, effort expectancy, social influence and facilitating conditions.

### **2.2 Effort Expectancy (EE):**

In the UTAUT model, EE is defined as the degree of convenience associated with the use of a system (Venkatesh et al., 2003). According to Rahi et al. (2019) the user's anticipation of ease is referred to as EE. This concept is comparable to TAM's perceived ease of use (Zhou et al., 2010). Different studies have validated that EE has a positive relationship with BI to use mobile learning service (Sung et al., 2015); mobile coupon adoption (Jayasingh & Eze, 2009); online shopping (Sareen & Jain, 2014). As a result, in the context of digital payment services, it is hypothesised that if consumers perceive these

services to be convenient to use, they will be more likely to utilise them to make financial transactions.

Therefore, on the basis of the above, the study proposes following hypothesis:

H<sub>1</sub>: Effort expectancy has a positive impact on behavioral intention to use digital payment services.

### **2.3 Performance Expectancy (PE):**

The degree to which a person perceives that adopting the technology will enable him or her in improving job performance is referred to as PE (Venkatesh et al., 2003). This construct is similar to TAM's perceived usefulness (Sair & Danish, 2018). In the individual TAM, perceived usefulness is considered to be the main determinant of BI (Agarwal & Prasad, 1998). According to Martins et al. (2014) PE in the context of internet banking is the degree to which a user perceives that using online banking will assist him in accomplishing banking chores. Individuals are expected to engage in technology use based on their beliefs that it will result in beneficial outcomes (Yang, 2010). Several studies have found that PE has a positive and substantial impact on users' BI to use internet banking (Martins et al., 2014; Oliveira et al., 2016; Rahi et al., 2019). Baptista and Oliveira (2015) also discovered that users' BI to use mobile banking services were highly influenced by their PE.

In the light of reported evidence, the following hypothesis is proposed:

H<sub>2</sub>: Performance expectancy has a positive impact on behavioral intention to use digital payment services.

### **2.4 Social Influence (SI):**

The extent to which relatives and friends impact an individual's decision to utilize a certain technology is known as SI (Venkatesh et al., 2012). Several authors have defined SI as the level of societal pressure imposed on an individual to adopt a new technology (Chaouali et al., 2016; Rahi et al., 2019; Hu et al., 2020). The construct of subjective norm in the theory of reasoned action is quite close to the concept of SI (Zhou et al., 2010). Raven (1964) defined SI as the change in a person's cognition, attitude, or behaviour that stems from another individuals or groups. In their study, Escobar-Rodriguez et al. (2014) discovered that the opinions of those who mattered to an individual influenced the individual's BI. According to Slade et al. (2014), in the contexts of m-commerce, m-banking and m-payment, SI has been the most tested construct. Several studies have revealed that SI is an important predictor of BI (Rahman et al., 2020; Martins et al., 2014; Rahi et al., 2019; Tarhini et al., 2016).

Based on the above discussion, study proposes the following hypothesis:

H<sub>3</sub>: Social Influence has a positive impact on behavioral intention to use digital payment services.

### **2.5 Promotional Offers (PO):**

POs are frequently used to improve the effectiveness of sales efforts and to temporarily amplify consumer demand (George & Sunny, 2021). Lowering prices or providing other benefits is believed to generate considerable consumer attention, product trials, or purchase. Hence, it is used to attract new consumers and retain existing customers. A prominent study by Madan and Yadav (2018), concluded that POs in the form of cash rewards for app download, coupons, cashback offers and reward points, positively influence the BI of users toward mobile shopping. Customers take advantage of vouchers, discounts, and refund offers to save money on transactions made with digital payment services; hence, POs could become one of the most important element in determining the adoption of digital payment services (George & Sunny, 2021). Further, Bagla and Sancheti (2018), found that POs offered by digital payment companies have a positive impact on consumers' BI to adopt these services. As a result, it is necessary to comprehend the effect of POs on consumers' BI to adopt digital payment services. In the light of reported evidence, the following hypothesis is proposed:

H<sub>4</sub>: Promotional offers have a positive impact on behavioral intention to use digital payment services.

### **2.6 Price Value (PV):**

The perceptual tradeoff between the expected benefits of the technologies and the financial cost of utilizing them is denoted as PV (Venkatesh et al., 2012). While developing the UTAUT-2 paradigm, Venkatesh et al. (2012) stated that PV is a key determinant of BI to use a technology because consumers seek higher benefits in consideration of a monetary sacrifice. When the potential benefits of using a technology outweigh the expenses of its service, PV is positive (Khan et al., 2021). According to Chiang and Jang (2007), who discovered that users' BIs are significantly affected by PV, cost is a crucial component in consumers' decision-making. Handoko (2020) conducted a study on technology adoption by entrepreneurship students, and found that PV significantly influenced students' BI to adopt technology. Yang (2009) found that users' willingness to accept M-banking services is influenced by its cost, and that a lower cost has a favorable impact on users' willingness to adopt M-banking. Similarly, plenty of other researchers have found that the PV of various ICT services is a strong predictor of BI (Mugambe, 2017; Tak & Panwar, 2017; Raza et al., 2019).

In the light of reported evidence, the following hypotheses are proposed:

H<sub>5</sub>: Price Value has a positive impact on behavioral intention to use digital payment services.

### **2.7 Facilitating conditions (FC):**

The extent to which a user perceives that an organizational and technological infrastructure exists to facilitate system use is described as FC (Venkatesh et al., 2003). The construct of FC was derived from the concept of perceived behavioral control and states that individuals demand system availability at work place (Rahi et al., 2019).

Venkatesh et al. (2003) discovered FCs that influence use behaviour but not BI in the original UTAUT model. Over and above the existing correlation between FCs and technology use, Venkatesh et al., (2012) modified the original UTAUT model by introducing a direct relationship between FCs and BI and discovered a substantial relationship between the two. According to several studies, FCs have a considerable impact on both BI and actual usage behaviour (Ghalandari, 2012; Rahman et al., 2020; Oliveira et al., 2016; Hu et al., 2020). As a result, this study proposes that FCs are an important determinant of individuals' BI and use behaviour. Following above arguments, FCs are outlined as:

H<sub>6a</sub>: Facilitating conditions have a positive impact on behavioral intention to use digital payment services.

H<sub>6b</sub>: Facilitating conditions have a positive impact on actual use behavior.

### **2.8 Habit (HT):**

HT is a pattern of behaviour depending on a person's knowledge and experiences (Venkatesh et al., 2012). According to Limayem et al. (2007), HT is the extent to which a person displays behaviors automatically and impulsively as a result of learning. In reaction to a criticism of BI as the major predictor of technology use, Venkatesh et al. (2012) included the construct HT as a predictor of both BI and technology use behaviour in UTAUT2. Liao et al. (2006) investigated the impact of HT on e-commerce acceptance and found that customers' BIs to adopt e-commerce are influenced by HT. Raza et al. (2019) examined the factors affecting the acceptance of mobile banking in Islamic banks and reported a significant association between HT and BI. Similarly, many existing studies have found that HT is a strong predictor of both BI and use behaviour of a system (Gupta et al., 2018; Palos-Sanchez et al., 2019; Kim & Lee, 2020; Rahman et al., 2020). In the light of reported evidence, the following hypotheses are proposed:

H<sub>7a</sub>: Habit has a positive impact on behavioral intention to use digital payment services.

H<sub>7b</sub>: Habit has a positive impact on actual use behavior.

### **2.9 Use Behavior (UB)**

According to Davis (1989), BI to use the system is strongly linked with actual UB, and BI is a key indicator of UB, whereas other factors affect UB passively through BI. Hill et al. (1987) also found that BI is a strong predictor of action. According to Venkatesh et al. (2003) BI has a significant positive influence on UB. Several other studies have also suggested a significant interconnection between BI and UB (Dabholkar and Bagozzi, 2002; Vijayasathy, 2004; Singh and Rajeev, 2021). Consistent with all the underlying theory for all the intention models, the researcher expects that BI will have a significant positive influence on UB.

H<sub>8</sub>: Behavioural intention to use fintech services has a positive impact on actual use behaviour.

## **2.10 Financial Strength (FS)**

FS is defined as the potential to create earnings and adequate cash flow to cover expenses and pay back the debt at its most basic level. Scholars have noted that financial institutions require sufficient FS, i.e., enough capital to withstand losses while satisfying their financial responsibilities (Perera et al., 2013). According to Zenchenko (2015), the FS of banking institutions is the long-term stability of its financial position and represents the state of its resource base, in which the credit institution can ensure smooth operation and receive the specified amount of income and profit while redistributing its resources. Therefore, it can be inferred that the FS of an individual is his ability to earn, repay debts, meet his daily expenses and generate savings for future, etc. When individuals rely on digital payment services for their livelihood, being able to use such technology becomes a requirement. The more individuals use these services, the more their abilities will be sorely tested. Perhaps a higher rate of usage will yield a good FS for them. Assuming this, it is argued that individuals' UB of digital payment services has a significant impact on nurturing their FS. As a result, our final and most contributory hypothesis is:

H<sub>9</sub>: Actual use behaviour of digital payment services positively affects the financial strength of individuals.

## **3. RESEARCH METHODOLOGY:**

### **3.1 Measurement Instruments**

The study has used Interview schedule as the main data collection instrument, in order to test the hypotheses. 5 – point Likert scale was employed to record the responses from the tourists, where 1 = 'Strongly Disagree' and 5 = 'Strongly Agree'. The measurement items for the constructs of UTAUT-2 were adapted from Venkatesh et al. (2003); Venkatesh et al. (2012); Zhou et al., 2010; Baptista and Oliveira (2015); and Rahman et al. (2020); Tak and Panwar (2017). Items from the previous studies were modified to elucidate the perception of tourists. The content validity of the measurement items was confirmed by 3 experts. A pilot study on 40 tourists was also conducted for the purpose of establishing the validity of the measurement items. The items were modified and adjusted for the survey based on responses from the pretest respondents.

### **3.2 Data Collection**

The present study has taken the tourists of Uttar Pradesh, India, as the unit of analysis. The study used random sampling technique. In total, 350 scheduled interviews were conducted with the tourists in Varanasi. Varanasi has been chosen considering the fact that Varanasi is the oldest city in the world and the flow of tourists has been eternal since time immemorial. However, after removing outliers and partial responses, only 260 (about 74.3%) responses retained complete in all dimensions and were regarded viable for further study. Data was collected during a three-month period, starting from October, 2022 to June, 2023.

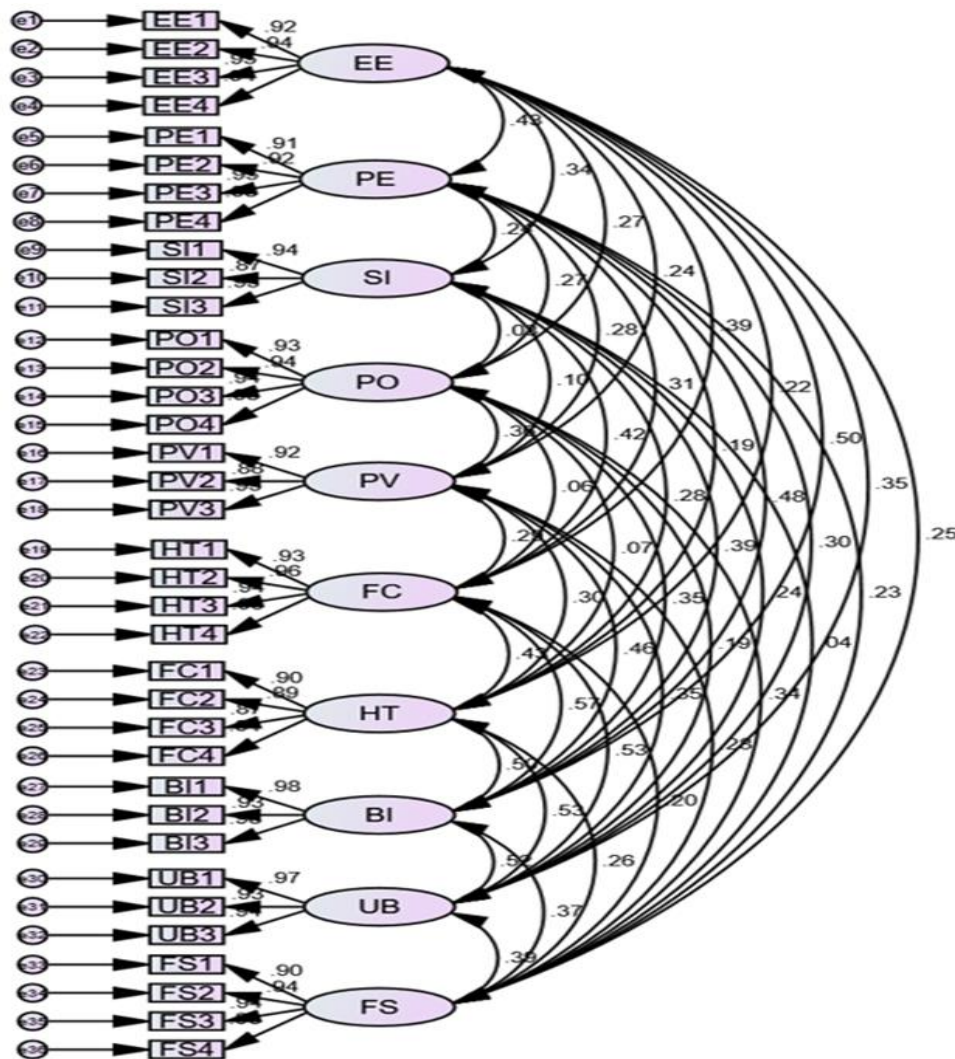


#### **4. DATA ANALYSIS:**

The researcher has performed Exploratory Factor Analysis (EFA), using SPSS 26.0 to investigate the latent variables underlying a set of measuring items, following the criteria of Anderson and Gerbin (1988). The study has used principal component analysis (PCA) as the coefficient method with varimax rotation and eigenvalue 1.0 as cutoff criterion. To determine sampling adequacy, the KMO test was used. The Kaiser–Meyer–Olkin measure was 0.891, indicating that the sample size was adequate and sufficient for factor analysis. The significance value for the Bartlett's test was 0.000, which is less than 0.05, indicating that the variables are suitably correlated and hence provide an acceptable basis for factor analysis. All 36 tested items had extraction values greater than 0.50, thus they were retained for further investigation. Finally, ten components with eigen values greater than one were accepted for further investigation, following the criteria of Hair et al.(2015).The total cumulative variance explained by all ten factors was 88.19%, implying that the ten additional factors retrieved from the initial 36 items are effective enough to explain more than 88.19% of the variance.

##### ***4.1 Measurement Model***

To validate the resultant factor structure found from EFA, confirmatory factor analysis (CFA) was performed by framing a measurement model using AMOS 26.0.



**Figure 2.** Measurement model

Source: The Authors

Note: EE: Effort expectancy, PE: Performance expectancy, SI: Social influence, PV: Price value, PO: Promotional offers, FC: Facilitating conditions, HT: Habit, BI: Behavioral intention, UB: Use behavior, FS: Financial strength.

The model fit was assessed using numerous fit indices. The model fit satisfied all of the requirements for good fit, including  $\chi^2/df = 1.431$ , GFI = 0.919, AGFI = 0.903, CFI = 0.976, SRMR = 0.036, and RMSEA = 0.041, according to the CFA results.

In order to measure the internal consistency of the data Cronbach's  $\alpha$  value was calculated. The Cronbach's  $\alpha$  values of all the constructs were found to be greater than 0.70, confirming adequate reliability of the constructs (Bland and Altman, 1997).

**Table 1: Results of Measurement Model**

	Factor loadings	Composite Reliability	Average Variance Extracted	Cronbach's $\alpha$
<b>EE</b>		0.958	0.852	0.957
EE1	0.921			
EE2	0.935			
EE3	0.929			
EE4	0.921			
<b>PE</b>		0.961	0.860	0.960
PE1	0.911			
PE2	0.921			
PE3	0.947			
PE4	0.931			
<b>SI</b>		0.927	0.810	0.926
SI1	0.892			
SI2	0.877			
SI3	0.930			
<b>PV</b>		0.926	0.807	0.926
PV1	0.918			
PV2	0.879			
PV3	0.897			
<b>PO</b>		0.949	0.822	0.948
PO1	0.901			
PO2	0.911			
PO3	0.903			
PO4	0.912			
<b>FC</b>		0.940	0.795	0.939
FC1	0.900			
FC2	0.890			
FC3	0.872			
FC4	0.905			
<b>HT</b>		0.951	0.819	0.950
HT1	0.903			
HT2	0.902			
HT3	0.919			
HT4	0.917			
<b>BI</b>		0.946	0.854	0.945
BI1	0.907			
BI2	0.929			
BI3	0.936			
<b>UB</b>		0.940	0.840	0.940
UB1	0.913			
UB2	0.915			
UB3	0.923			
<b>FS</b>		0.948	0.819	0.947
FS1	0.898			
FS2	0.889			
FS3	0.904			
FS4	0.928			

**Source:** The Authors

**Note:** EE: Effort expectancy, PE: Performance expectancy, SI: Social influence, PV: Price value, PO: Promotional offers, FC: Facilitating conditions, HT: Habit, BI: Behavioral intention, UB: Use behavior, FS: Financial strength.

**Table 2: Discriminant Validity using Fornell and Larker’s Criterion**

	EE	PE	SI	PV	PO	FC	HT	BI	UB	FS
EE	<b>0.923</b>									
PE	0.437	<b>0.928</b>								
SI	0.337	0.234	<b>0.900</b>							
PV	0.245	0.287	0.119	<b>0.898</b>						
PO	0.286	0.289	0.021	0.365	<b>0.907</b>					
FC	0.219	0.192	0.268	0.297	0.064	<b>0.892</b>				
HT	0.417	0.313	0.409	0.295	0.056	0.419	<b>0.910</b>			
BI	0.524	0.492	0.389	0.467	0.347	0.482	0.561	<b>0.924</b>		
UB	0.360	0.304	0.252	0.377	0.212	0.534	0.528	0.545	<b>0.917</b>	
FS	0.278	0.238	0.040	0.290	0.345	0.266	0.185	0.384	0.380	<b>0.905</b>

**Source:** The Authors

**Notes:** The diagonals represent the square root of average variance extracted and the lower cell represents the correlation among constructs.

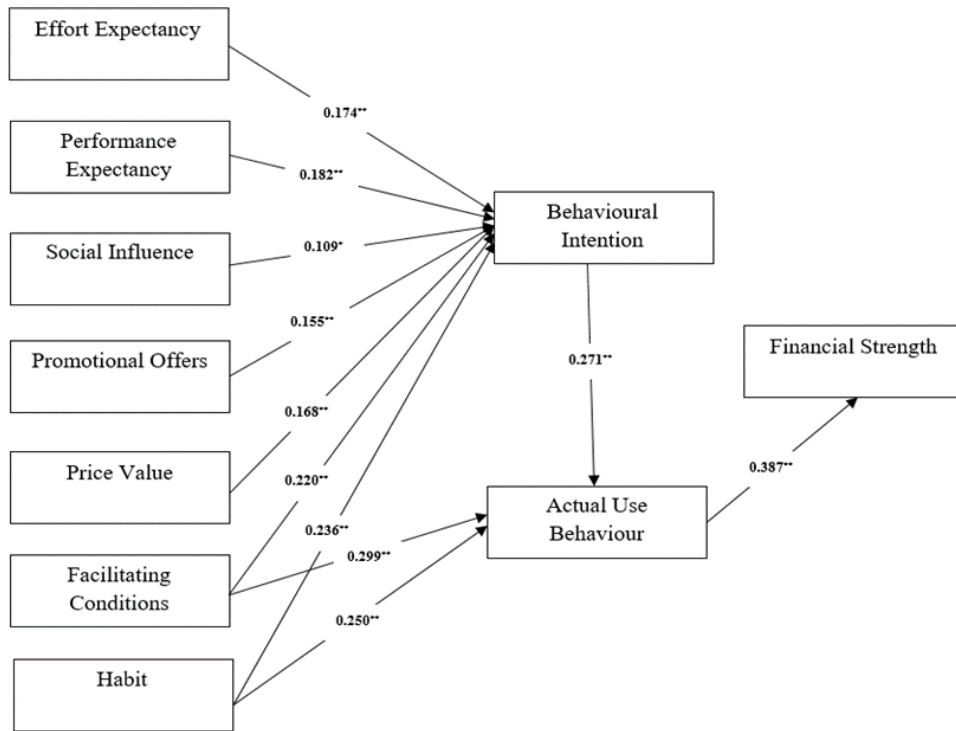
EE: Effort expectancy, PE: Performance expectancy, SI: Social influence, PV: Price value, PO: Promotional offers, FC: Facilitating conditions, HT: Habit, BI: Behavioral intention, UB: Use behavior, FS: Financial strength.

The initial step looked at the constructs' convergent and discriminant validity, as well as their reliability. Convergent validity of the factors was checked with the help of AVE and factor loadings. The factor loadings of each item are shown in Table 1, suggesting that they were all statistically significant and greater than the recommended minimum value of 0.70 (Fornell and Larker, 1981). Table 2 also provides the AVE scores for all of the constructs, demonstrating that each of the values are higher than the acceptable threshold of 0.50 (Fornell and Larker, 1981). The reliability of the constructs were also confirmed, as the composite reliabilities shown in Table 2 are higher than the minimum recommended threshold of 0.70 (Gefen et al. 2000).

Discriminant validity of all the ten constructs was also established, as demonstrated in Table 2. The square root calculated from the AVE of each component, found to be higher than the correlation among the constructs.

### 4.2 Structural Model

A Path model was used to test the structural model and hypothesized correlations. The statistical significance of correlation between constructs was investigated using the path coefficient and the findings of the same are shown in Figure 3 and Table 3.



**Figure 3: Result of the structural model**

**Source:** The Authors

**Notes:** \*\* Value is significant at 0.01 level of significance; \* Value is significant at 0.05 level of significance

**Table 3: Path Estimates**

Hypothesis	Estimate
H <sub>1</sub> . Effort Expectancy → Behavioural Intention	0.174**
H <sub>2</sub> . Performance Expectancy → Behavioural Intention	0.182**
H <sub>3</sub> . Social Influence → Behavioural Intention	0.109*
H <sub>4</sub> . Promotional offers → Behavioural Intention	0.155**
H <sub>5</sub> . Price Value → Behavioural Intention	0.168**
H <sub>6a</sub> . Facilitating conditions → Behavioural Intention	0.220**
H <sub>6b</sub> . Facilitating conditions → Actual Usage Behaviour	0.299**
H <sub>7a</sub> . Habit → Behavioural Intention	0.236**
H <sub>7b</sub> . Habit → Actual Usage Behaviour	0.250**
H <sub>8</sub> . Behavioral Intention → Actual Usage Behaviour	0.271**
H <sub>9</sub> . Actual Usage Behavior → Financial Strength	0.387**

**Source:** The Authors

**Notes:** \*\* Value is significant at 0.01 level of significance; \* Value is significant at 0.05 level of significance

The structural model's outcome indicates that EE ( $\beta = 0.174$ ,  $p < 0.01$ ), PE ( $\beta = 0.182$ ,  $p < 0.01$ ), SI ( $\beta = 0.109$ ,  $p < 0.05$ ), PV ( $\beta = 0.168$ ,  $p < 0.01$ ), POs ( $\beta = 0.155$ ,  $p < 0.01$ ), and HT ( $\beta = 0.236$ ,  $p < 0.01$ ) have a significant impact on BI, confirming the formulated hypotheses. As a result, H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub>, H<sub>5</sub>, H<sub>6a</sub> and H<sub>7a</sub> were accepted. Path estimates also point that FCs ( $\beta = 0.299$ ,  $p < 0.01$ ) and HT ( $\beta = 0.250$ ,  $p < 0.01$ ) positively influence UB, hence H<sub>6b</sub> and H<sub>7b</sub> are also accepted. Path estimates demonstrate that BI positively influences the respondents' UB ( $\beta = 0.271$ ,  $p < 0.01$ ). As a result, H<sub>8</sub> was also accepted. The results also demonstrate that UB ( $\beta = 0.387$ ,  $p < 0.01$ ) has a significant and positive influence on FS of the respondents, therefore, H<sub>9</sub> was also supported.

## 5. DISCUSSION AND CONCLUSION

This study investigates the acceptance of digital payment services by the tourists of Uttar Pradesh, India. The UTAUT-2 model was applied for the study and yielded insightful results. The findings of the study reaffirm the potential of UTAUT-2 to anticipate the acceptance of digital payment services both theoretically and empirically. The pragmatic examination led to the conclusion that all the constructs of UTAUT-2 i.e., EE, PE, SI, FC, PV and HT have a significant and positive impact on the BI to use digital payment services. Moreover, the study also finds that POs have a significant positive influence on BI to use digital payment services.

The findings of the study show that EE has a positive relationship with BI to use digital payment services, which directly support the findings of Oh et al. (2009), Sung et al. (2015), Jayasingh and Eze (2009) and Sareen and Jain (2014). This shows that if consumers perceive digital payment services to be convenient to use, they will be more likely to utilise them to make financial transactions.

PE was also found to have a significant positive influence on BI, which was consistent with the views of Martins et al. (2014), Oliveira et al. (2016), Rahi et al. (2019), Baptista and Oliveira (2015), and Rahman et al. (2020). This demonstrates that people prefer using digital payment services because they offer significant assistance in their everyday financial activities. These are significant indicators for digital payment app developers, they should heighten the PE and EE by providing more user-friendly interface. The simple interface will persuade less digitally sophisticated users i.e. tourists, to utilise digital payment apps, resulting in increased income for marketers. SI was also identified as a key predictor of BI in the study, which confirms the findings of Rahman et al. (2020), Martins et al. (2014), Rahi et al. (2019) and Tarhini et al. (2016). This indicates that respondents are swayed by their social circle. Since digital payment services are technology-based mobile financial services, users should have influenced by the surroundings that may influence their propensity to adopt them.

The findings show that POs significantly influence BI of the respondents to use digital payment services. This signifies that respondents enjoy reaping the benefits of POs since they allow them to save money and gain additional worth. PV was also found to be a significant predictor of respondents' BI to use digital payment services, which is in line with the views of Chiang and Jang (2007), Venkatesh et al. (2012), Mugambe (2017), Tak and Panwar (2017) and Raza et al. (2019). This clearly illustrates that tourists are concerned about PV considerations while deciding whether or not to use digital payment services. Furthermore, FCs were found to be significantly influencing BI and UB of the respondents, which was in direct support of the findings of Ghalandari (2012), Rahman et al. (2020), Oliveira et al. (2016), and Hu et al. (2020). This can be due to infrastructural support from India's telecom business, which is delivering high-speed internet at reasonable pricing. The model of the study also confirmed a significant positive influence on BI and UB of the respondents, and this finding is consistent with other studies (Gupta et al., 2018; Palos-Sanchez et al., 2019; Kim & Lee, 2020). The findings of the study show that BI of respondents to use digital payment services has a significant and positive influence on UB, and confirms the previous studies (Dabholkar and Bagozzi, 2002; Vijayasarathy, 2004; Sivathanu, 2018; Singh and Rajeev, 2021).

Finally, it is important to note that the study has shown a positive and significant influence of UB on the FS of the tourists. This implies that digital payment services can help tourists save some money and reinvest it in their living by letting them to get paid for their harvests instantly, accurately, conveniently and safely. Thus, all the proposed hypotheses were supported in the study. The study findings add to the existing literature on technology adoption in emerging markets. While the adoption of technology has been explored in detail, the specific intricacies related with the adoption of digital payment apps by tourists have not attracted enough attention from scholars. Finally, our research adds to the limited literature on the adoption and usage behaviour of digital payment apps in the context of Indian tourists.

## **6. IMPLICATIONS**

### **6.1 Theoretical Implications**

This study makes various theoretical and practical contributions. This study has incorporated promotional offers as a new construct to the UTAUT-2 model and generalized it with the adoption of digital payment services, thus adding value to the existing literature.

The UTAUT-2 model has been used in a variety of scenarios in previous studies including mobile banking (Alalwan et al., 2017; Kwateng et al., 2019; Baptista & Oliveira, 2015), mobile financial services (Rahman et al., 2020), internet banking (Rahi et al., 2019), acceptance of mobile banking in Islamic banks (Raza et al., 2019) etc. However, there are few studies which try to analyse the outcome of usage of digital payment services in terms of the financial strength in the context of tourists. The findings of this study imply that digital payment services are an effective tool for ensuring the financial strength of the tourists. The more a person utilises these services, the more likely he or she is to profit

from it. Moreover, this study confirms that BI toward digital payment services is driven by PE, EE, SI, OP, PV, FC and HT. Subsequently, BI, FC and HT all are found to have a significant impact on the UB of digital payment services. It is professed that this study provides a more comprehensive understanding of how people accept and use technology, as well as the consequences of their actions. It is anticipated that this effort will serve as a model for future study in the field of digital payment adoption and use.

## **6.2 Practical Implications**

The findings presented in this study are highly valuable for policymakers, business enterprise and academicians working in the field of digital payment services. The findings of the current study indicate that the use of digital payment services can improve the quality of life of Indian tourists. Lower transaction fee and processing charges enable the tourists to save more money, which in turn have a positive impact on their financial strength. Conferring to the findings of the study, managers in the digital payment industry must also explore various factors that enable consumers to adopt and use digital payment services. Plausibly, corporate representatives in the field may develop innovative tech-based financial services that are much more efficient and beneficial to use and also assure convenient usage. As a result, companies attempting to bring about technology-based structural reform should review the current study, which has the potential to provide an array of ways for refining the financial services.

## **7. LIMITATIONS AND SCOPE FOR FUTURE RESEARCH**

The study includes various limitations that needs to be addressed in future research. The study was conducted in Varanasi of Uttar Pradesh, India. Thus, a higher number of locations should be included from different parts of the country. Other research constructs, for example perceived trust, perceived risk, service quality etc., can be incorporated in further studies. Future studies may explore the moderating impact of socioeconomic and demographic variables such as gender, age, marital status, income, and education level. Furthermore, the current study is a cross-sectional study that looked at the adoption of digital payment services at one particular time. Since the study is focused on consumer behavior, a longitudinal study may be more appropriate and effective.

### **References**

- 1) Agarwal, R. and Prasad, J. 1998. A conceptual and operational definition of information technology. *Information Systems Research*, 9: 204–215.
- 2) Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International Journal of Information Management*, 37(3), 99-110.
- 3) Al-Okaily, M., Lutfi, A., Alsaad, A., Taamneh, A., & Alsyouf, A. (2020). The determinants of digital payment systems' acceptance under cultural orientation differences: The case of uncertainty avoidance. *Technology in Society*, 63, 101367.



- 4) Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423.
- 5) APEC. (2017). [https://www.apec.org/-/media/APEC/Publications/2017/10/The-Role-of-Digital-Payments-in-Sustainable-Agriculture-and-Food-Security/217\\_FMP\\_Agriculture.pdf](https://www.apec.org/-/media/APEC/Publications/2017/10/The-Role-of-Digital-Payments-in-Sustainable-Agriculture-and-Food-Security/217_FMP_Agriculture.pdf).
- 6) Baptista, G., & Oliveira, T. (2015). Understanding mobile banking: The unified theory of acceptance and use of technology combined with cultural moderators. *Computers in Human Behavior*, 50, 418–430.
- 7) Bland, J. M., & Altman, D. G. (1997). Statistics notes: Cronbach's alpha. *Bmj*, 314(7080), 572.
- 8) Chaouali, W., Yahia, I.B. and Souiden, N. (2016). “The interplay of counter-conformity motivation, social influence, and trust in customers’ intention to adopt internet banking services: the case of an emerging country”, *Journal of Retailing and Consumer Services*, Vol. 28, pp. 209-218.
- 9) Chiang, C.-F., and S. S. Jang. 2007. The effects of perceived price and brand image on value and purchase intention: Leisure travelers’ attitudes toward online hotel booking. *Journal of Hospitality & Leisure Marketing* 15 (3):49–69.
- 10) Dabholkar, P. A., & Bagozzi, R. P. (2002). An attitudinal model of technology-based self-service: Moderating effects of consumer traits and situational factors. *Journal of the Academy of Marketing Science*, 30(3), 184-201.
- 11) Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
- 12) El-Masri, M., & Tarhini, A. (2017). Factors affecting the adoption of e-learning systems in Qatar and USA: Extending the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). *Educational Technology Research and Development*, 65(3), 743-763.
- 13) Escobar-Rodríguez, T., Carvajal-Trujillo, E., & Monge-Lozano, P. (2014). Factors that influence the perceived advantages and relevance of Facebook as a learning tool: An extension of the UTAUT. *Australasian Journal of Educational Technology*, 30(2).
- 14) Farooq, M. S., Salam, M., Jaafar, N., Fayolle, A., Ayupp, K., Radovic-Markovic, M., & Sajid, A. (2017). Acceptance and use of lecture capture system (LCS) in executive business studies: Extending UTAUT2. *Interactive Technology and Smart Education*.
- 15) Fishbein, M., & Ajzen, A. (1980). Understanding Attitudes and Predicting Social Behaviour. Preventive-Hall. Inc., Englewood Cliffs.
- 16) Fornell, C. and Larcker, D.F. (1981), “Structural equation models with unobservable variables and measurement error: Algebra and statistics”, *Journal of Marketing Research*, Vol. 18 No. 3, pp. 382-388
- 17) Ghalandari, K. (2012). The effect of performance expectancy, effort expectancy, social influence and facilitating conditions on acceptance of e-banking services in Iran: The moderating role of age and gender. *Middle-East Journal of Scientific Research*, 12(6), 801-807.
- 18) Gefen, D., Straub, D. and Boudreau, M.C. (2000), “Structural equation modeling and regression: guidelines for research practice”, *Communications of the Association for Information Systems*, Vol. 4.
- 19) George, A., & Sunny, P. (2021). Developing a Research Model for Mobile Wallet Adoption and Usage. *IIM Kozhikode Society & Management Review*, 10(1), 82-98.
- 20) Gupta, A., Dogra, N., & George, B. (2018). What determines tourist adoption of smartphone apps? An analysis based on the UTAUT-2 framework. *Journal of Hospitality and Tourism Technology*.

- 21) Hackbarth, G., Grover, V., & Mun, Y. Y. (2003). Computer playfulness and anxiety: Positive and negative mediators of the system experience effect on perceived ease of use. *Information & Management*, 40(3), 221–232.
- 22) Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2015). *Multivariate data analysis* (7th ed.). Pearson Education.
- 23) Handoko, B. L. (2020, August). UTAUT 2 model for entrepreneurship students on adopting technology. In *2020 International Conference on Information Management and Technology (ICIMTech)* (pp. 191-196). IEEE.
- 24) Herrero, Á., & San Martín, H. (2017). Explaining the adoption of social networks sites for sharing user-generated content: A revision of the UTAUT2. *Computers in Human Behavior*, 71, 209-217.
- 25) Hill, T., Smith, N. D., & Mann, M. F. (1987). Role of efficacy expectations in predicting the decision to use advanced technologies: The case of computers. *Journal of applied psychology*, 72(2), 307.
- 26) Hu, S., Laxman, K., & Lee, K. (2020). Exploring factors affecting academics' adoption of emerging mobile technologies-an extended UTAUT perspective. *Education and Information Technologies*, 25(5), 4615-4635.
- 27) Irdianty, A., & Aditya, B. R. (2021, March). Student Awareness of Digital Payment Services (Case Study in Indonesia). In *Journal of Physics: Conference Series* (Vol. 1823, No. 1, p. 012036). IOP Publishing.
- 28) Jaradat, M. I. R. M., & Al-Mashaqba, A. M. (2014). Understanding the adoption and usage of mobile payment services by using TAM3. *International Journal of Business Information Systems*, 16(3), 271-296.
- 29) Jayasingh, S., & Eze, U. C. (2009). Exploring the factors affecting the acceptance of mobile coupons in Malaysia. Eighth International Conference on Mobile Business.
- 30) Jiang, Y., Ahmad, H., Butt, A. H., Shafique, M. N., & Muhammad, S. (2021). QR Digital Payment System Adoption by Retailers: The Moderating Role of COVID-19 Knowledge. *Information Resources Management Journal (IRMJ)*, 34(3), 41-63.
- 31) Khan, I. U., Hameed, Z., Khan, S. N., Khan, S. U., & Khan, M. T. (2021). Exploring the effects of culture on acceptance of online banking: A comparative study of Pakistan and Turkey by using the extended UTAUT model. *Journal of Internet Commerce*, 1-34.
- 32) Kim, J., & Lee, K. S. S. (2020). Conceptual model to predict Filipino teachers' adoption of ICT-based instruction in class: using the UTAUT model. *Asia Pacific Journal of Education*, 1-15.
- 33) Kwateng, K. O., Atiemo, K. A. O., & Appiah, C. (2019). Acceptance and use of mobile banking: an application of UTAUT2. *Journal of Enterprise Information Management*.
- 34) Liao, C., Palvia, P. and Lin, H.N. (2006), "The roles of habit and web site quality in e-commerce", *International Journal of Information Management*, Vol. 26 No. 6, pp. 469-483.
- 35) Limayem, M., Hirt, S. G., & Cheung, C. M. (2007). How habit limits the predictive power of intention: The case of information systems continuance. *MIS Quarterly*, 31(4), 705–737.
- 36) Madan, K., & Yadav, R. (2018). Understanding and predicting antecedents of mobile shopping adoption: A developing country perspective. *Asia Pacific Journal of Marketing and Logistics*, 30(1), 139–162. <https://doi.org/10.1108/APJML02-2017-0023>.
- 37) Martins, C., Oliveira, T. and Popovic, A. (2014), "Understanding the internet banking adoption: a unified theory of acceptance and use of technology and perceived risk application", *International Journal of Information Management*, Vol. 34 No. 1, pp. 1-13.

- 38) Mugambe, P. (2017). UTAUT model in explaining the adoption of mobile money usage by MSMEs' customers in Uganda. *Advances in Economics and Business*, 5(3), 129-136.
- 39) Najib, M., & Fahma, F. (2020). Investigating the adoption of digital payment system through an extended technology acceptance model: An insight from the Indonesian small and medium enterprises. *International Journal on Advanced Science, Engineering and Information Technology*, 10(4), 1702-1708.
- 40) Nuryyev, G., Spyridou, A., Yeh, S., & Lo, C. C. (2021). Factors of digital payment adoption in hospitality businesses: A conceptual approach. *European Journal of Tourism Research*, 29, 2905-2905.
- 41) Oh, S., Lehto, X. Y., & Park, J. (2009). Travelers' intent to use mobile technologies as a function of effort and performance expectancy. *Journal of Hospitality Marketing & Management*, 18(8), 765-781.
- 42) Oliveira, T., Thomas, M., Baptista, G. and Campos, F. (2016), "Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology", *Computers in Human Behavior*, Vol. 61, pp. 404-414.
- 43) Pal, D., Vanijja, V., & Papsatorn, B. (2015). An empirical analysis towards the adoption of NFC mobile payment system by the end user. *Procedia Computer Science*, 69, 13-25.
- 44) Palau-Saumell, R., Forgas-Coll, S., Sánchez-García, J., & Robres, E. (2019). User acceptance of mobile apps for restaurants: An expanded and extended UTAUT-2. *Sustainability*, 11(4), 1210.
- 45) Palos-Sanchez, P. R., Correia, M. B., & Saura, J. R. (2019). An empirical examination of adoption of mobile applications in Spain and Portugal, based in UTAUT. *International Journal of Mobile Communications*, 17(5), 579-603.
- 46) Perera, A., Ralston, D., & Wickramanayake, J. (2013). Central bank financial strength and inflation: Is there a robust link?. *Journal of Financial Stability*, 9(3), 399-414.
- 47) Rahi, S., Mansour, M. M. O., Alghizzawi, M., & Alnaser, F. M. (2019). Integration of UTAUT model in internet banking adoption context: The mediating role of performance expectancy and effort expectancy. *Journal of Research in Interactive Marketing*.
- 48) Rahman, S. A., Didarul Alam, M. M., & Taghizadeh, S. K. (2020). Do mobile financial services ensure the subjective well-being of micro-entrepreneurs? An investigation applying UTAUT2 model. *Information Technology for Development*, 26(2), 421-444.
- 49) Raven, B. H. (1964). *Social influence and power*. California Univ Los Angeles.
- 50) Raza, S. A., Shah, N., & Ali, M. (2019). Acceptance of mobile banking in Islamic banks: evidence from modified UTAUT model. *Journal of Islamic Marketing*.
- 51) Reiss, D. G. (2018). Is money going digital? An alternative perspective on the current hype. *Reiss Financial Innovation*, 4(14), 1-6.
- 52) Sair, S. A., & Danish, R. Q. (2018). Effect of performance expectancy and effort expectancy on the mobile commerce adoption intention through personal innovativeness among Pakistani consumers. *Pakistan Journal of Commerce and social sciences (PJCSS)*, 12(2), 501-520.
- 53) Sareen, M., & Jain, A. (2014). The Role of Social Influence and consumer's effort expectancy on online shopping: An empirical study of India. *International Journal of Management Research and business strategy*, 3(1), 138-158.
- 54) Satama, S. (2014), "Consumer adoption of access-based consumption services – case AirBnB", Unpublished marketing master's thesis, Aalto University School of Business, available at: <https://aaltodoc.aalto.fi/handle/123456789/13723>.

- 55) Sehwall, L., & Bahou, M. (2017). Interview with The Jordanian Official Television program money and business-financial inclusion [Video file].
- 56) Singh, G., & Rajeev, P. V. (2021). Fintech: An Inquisitive Disruptive Technology for Small Retailers. *Nveo-Natural Volatiles & Essential Oils Journal| NVEO*, 9078-9097.
- 57) Sivathanu, B. (2018). Adoption of digital payment systems in the era of demonetization in India: An empirical study. *Journal of Science and Technology Policy Management*.
- 58) Sobti, N. (2019). Impact of demonetization on diffusion of mobile payment service in India: Antecedents of behavioral intention and adoption using extended UTAUT model. *Journal of Advances in Management Research*.
- 59) Sung, H. N., Jeong, D. Y., Jeong, Y. S., & Shin, J. I. (2015). The relationship among self-efficacy, social influence, performance expectancy, effort expectancy, and behavioral intention in mobile learning service. *International Journal of u-and e-Service, Science and Technology*, 8(9), 197-206.
- 60) Tak, P., & Panwar, S. (2017). Using UTAUT 2 model to predict mobile app based shopping: evidences from India. *Journal of Indian Business Research*.
- 61) Tarhini, A., Tarhini, A., El-Masri, M., El-Masri, M., Ali, M., Ali, M., Serrano, A. (2016). Extending the UTAUT model to understand the customers' acceptance and use of internet banking in Lebanon: A structural equation modeling approach. *Information Technology & People*, 29(4), 830–849.
- 62) Tavares, J., Goulão, A., & Oliveira, T. (2018). Electronic health record portals adoption: empirical model based on UTAUT2. *Informatics for Health and Social Care*, 43(2), 109-125.
- 63) Treiblmaier, H., Pinterits, A., & Floh, A. (2004). Antecedents of the adoption of e-payment services in the public sector. *ICIS 2004 Proceedings*, 6.
- 64) Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478.
- 65) Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157–178.
- 66) Vijayarathy, L. R. (2004). Predicting consumer intentions to use on-line shopping: The case for an augmented technology acceptance model. *Information & Management*, 41(6), 747-762.
- 67) Yang, A.S. (2009), "Exploring adoption difficulties in mobile banking services", *Canadian Journal of Administrative Sciences/Revue Canadienne Des Sciences De L'administration*, Vol. 26 No. 2, p. 136.
- 68) Yang, K. (2010). Determinants of US consumer mobile shopping services adoption: Implications for designing mobile shopping services. *Journal of Consumer Marketing*, 27(3), 262–270.
- 69) Slade, E. L., Williams, M. D., & Dwivedi, Y. K. (2014). Devising a research model to examine adoption of mobile payments: An extension of UTAUT2. *The Marketing Review*, 14(3), 310-335.
- 70) Zenchenko, S. V. (2015). Improvement of the Methodological Approach to the Integrated Assessment of the Financial Strength of Commercial Banks. *Mediterranean Journal of Social Sciences*, 6(5 S4), 98-98.
- 71) Zhou, T., Lu, Y., & Wang, B. (2010). Integrating TTF and UTAUT to explain mobile banking user adoption. *Computers in Human Behaviour*, 26(4), 760–767.
- 72) Awunyo-Vitor, D. (2016). What drives mobile money services demand by tourists in Ghana? A study of maize tourists. *International Journal of Management Practice*, 9(2), 173-191.
- 73) Bagla, R. K., & Sancheti, V. (2018). Gaps in customer satisfaction with digital wallets: challenge for sustainability. *Journal of Management Development*.