
Ascertaining the Consumer's Perception, Preference and Perceived Satisfaction of Digital Payment Platform: Research Evidence from Saudi Arabia

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Abstract:

Purpose: This study identifies the key factors and deterrents to adopting a mobile wallet in Saudi Arabia. This study is intended to analyze the important factors influencing user's intention, preference and perceived satisfaction after the usage of digital payment platform.

Design/Methodology/Approach: In this study, the integrated model of UTAUT that includes variables such as trust, ease of use, trust, security, self-efficiency, and 'Hedonism' is used to test consumer behavior in the usage of mobile wallet technologies. Statistical tools such as ANOVA, regression analysis and descriptive analysis are used to test the relationship between the level of the satisfaction, consumer preferences and the perception of the respondents in this study. The importance of the model under study and its effectiveness in understanding consumer behavior in Saudi Arabia is analyzed.

Findings: The results of this study indicated that there is a positive relationship between the perception of difference and consumer satisfaction. This study also confirmed that the consumer's intention plays an important role in the use and adoption of any new technology. Their thoughts are influenced by social variables such as their family, friends, and society.

Practical Implication: Our study being one of its kind therefore it is important in analyzing the features associated with the mobile wallet apps which are in race in Saudi Arabia. Subsequently it is significant in giving the organizations to redesign the versatile wallet applications by and large utilized in Saudi Arabia.

Originality/Value: This study is conducted in Dammam region which can be further enhanced on a larger platform,

Keywords: Digital payment platforms, mobile wallets, Saudi Arabia.

Research Type: Research article.

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1. Introduction

Mobile wallets are one of the latest innovations with a notable potential to change the way consumers shop and improve your shopping experiences. Services offered by the mobile wallet must be safe, reliable, and constantly available. Any problem using the mobile wallet is likely to influence the perceived value of consumers and the level of satisfaction with service providers (Mew and Millan, 2021).

Mobile Wallet's utility is the same as that of a credit or Debit card. A Mobile wallet must be linked to the person's bank account to make payments. The Mobile wallet has mainly two components, software, and information. The software component stores personal information and provides data security and encryption. The information component is a database of user-supplied details that includes your name, shipping address, payment method, amount to pay, credit or debit card details, etc., (Pachpande and Kamble, 2018).

Mobile wallets had around 90% market share in the digital payments industry with more than 600 million mobile wallet users. The widespread use of mobile payments in Saudi Arabia has shown a glimpse of the cashless future (Aveni and Roest, 2017). The covid-19 pandemic act as a catalyst for the rise of cashless payment (Kaur *et al.*, 2020) and gave a boom to the use of the mobile wallet in the digital payment platform as one of the initiatives of the Saudi Arabian government (Balch, 2020).

This phenomenon shows that mobile wallets have become a necessity to move towards a cashless society. People have the right to redeem credits through designated mobile wallet services to encourage security, contactless payment experience and generating income for the nation during the pandemic (Di Pietro *et al.*, 2015).

2. Literature Review

Till date, the available literature has discussed the perception of consumer adoption of mobile payment technology, but the factors considered in the research even today are not validated. Researches that are generally relevant in the investigations of payment through mobile wallet have studied the impacts of barriers (Kaur *et al.*, 2020) like usage barrier, risk ,tradition barrier and image barrier on the intention and perception of the user to use digital payment services (Li *et al.*, 2019). Also, the cashless society point that mobile wallet for payment has become a frequently used for digital payment platforms.

In another research, the research questions like what motivates consumers to use mobile wallet services and by which factors consumer is influenced while using the mobile wallets are investigated (Teng and Khong, 2021). His contribution to the study is to apply text mining methods to analyze mobile wallet usage and how companies are detecting on which factors consumers are using their app (Kaur *et al.*,

2020). Further investigate about the actual use of mobile payments by consumers and reveal the underlying problems.

Mobile wallets helps merchants extend their brands and increase their revenue, and faster transactions (Slade, Williams, Dwivedi, and Piercy, 2015) with time savings and lower costs (Talwar *et al.*, 2020). On the one hand, mobile wallets serve as a mobile payment platform for users through the downloaded mobile application to make payment, and on the other hand, they serve as a convenience for merchants to receive payment in point-of-sale terminals. Wang *et al.* (2016) concluded that Paypal and banks act as intermediaries when companies and individuals engage in e-commerce transactions without knowing each other across borders (Wang *et al.*, 2016).

In this research we conducted his research on the factors like Perception (defined by ease of use, usefulness, confidence, 'Hedonism', social factors, self-sufficiency, attitude, and security), preference and satisfaction. It is also investigated how users are influenced by family and society and with their choices and preferences, as well as the effect of gender and age on the usage of Mobile wallet.

The growing importance of mobile wallets in Saudi Arabia gives us the opportunity to study consumer perception and adoption rate of mobile wallets in this study, we seek to develop a conceptual model that examines the various factors that influence satisfaction of the consumer in Saudi Arabia.

3. The Model

Technology Acceptance Model TAM identify the behavioural factors that motivate people to adapt a new technology. In this study important variables like ease of use and utility are studied that explain the intention of consumers to adopt any technological model. This model is considered the most effective model to assess the factors that influence the uses and adoption rate of any technology. But it lacks variables such as social trust, the attitude factors that plays an important role in the adoption of any technology.

These factors have been considered in the integrated model UTAUT as an extension of the previous TAM model. In this model factors such as the attitude, trust, social norms, security, and self-efficacy are also included standards. Mobile wallets were used as a tool for financial transaction and payments, but today consumers are using it as a tool to test something new and for fun. 'Hedonism' is an extension which is added as a new variable in this study.

In this article we examined several factors that are responsible for adopting mobile wallets in Saudi Arabia and to understand the preference of the consumer in Saudi Arabia (Figure 1).

4. Research Methodology

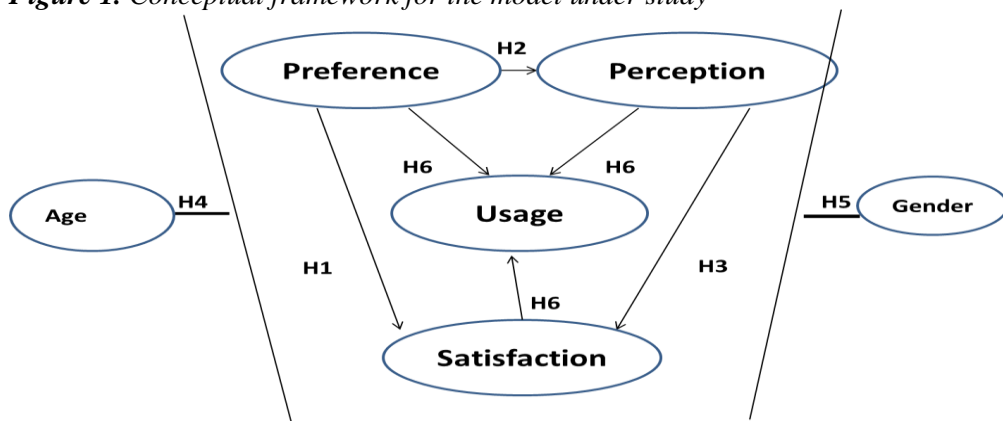
This study is divided into fourth sections. 1st section of this study concentrates on the literature review of the studies carried forward till date. Second section focus on the research methodology. Third section is intended to analyse the important factors influencing user's intention and perceived satisfaction after the usage of digital payment platform. In this study, we use the integrated model of UTAUT that includes variables such as trust, ease of use, trust, security, self-efficiency, and 'Hedonism' to test consumer behavior in the usage of mobile wallet technologies.

Statistical tools such as ANOVA, regression analysis and descriptive analysis are used to test the relationship between the level of the satisfaction, consumer preferences and the perception of the respondents in this study. The importance of the model under study and its effectiveness in understanding consumer behavior in Saudi Arabia is analysed.

5. Research Objectives

There is establishment of relationship between perception preference and user satisfaction of mobile wallets in Saudi Arabia. Since gender and age influence the use of any tools and technology available therefore, we sought to study the effects of the gender and age of consumers on perception preference and satisfaction with mobile wallets.

Figure 1. Conceptual framework for the model under study



Source: Own study.

Perception (defined by ease of use, usefulness, confidence, 'Hedonism', social factors, self-efficiency, attitude, and security), Preference and satisfaction are the variables under study. We seek to study the impact of friends and family of the company on the uses of the mobile wallet. Since the consumers are using mobile wallets to pay utility bills, fund transfer, for buying groceries and shopping etc., therefore, their preference is also studied in using Mobile wallets.

It also investigates how users are influenced by family and society and with their choices and preferences, as well as the effect of gender and age on the usage of Mobile wallet. The growing importance of mobile wallets in Saudi Arabia gives us the opportunity to study consumer perception and adoption rate of mobile wallets, we seek to develop a conceptual model that examines the various factors that influence satisfaction of the consumer.

6. Research Hypothesis

H1: There is insignificantly positive relationship between user's perception and satisfaction for the mobile wallet consumers.

H2: There is insignificantly positive relationship between user's perception and preference for the mobile wallet consumers.

H3: There is insignificantly positive relationship between user's satisfaction and preference for the mobile wallet consumers.

H4: There is insignificant difference between user's perception, preference, satisfaction and usage with respect to age for the mobile wallet consumers.

H5: There is insignificant difference between user's perception, preference, satisfaction and usage with respect to gender for the mobile wallet consumers.

H6: User's perception, preference and satisfaction insignificantly affect the usage of the mobile wallet.

7. Data Analysis

A structured questionnaire was distributed among the respondents, who use the mobile wallet for their transactions in Saudi Arabia. Both sexes, male and female, were considered for the responses. There were 10 questions on the questionnaire. 200 respondents were contacted to complete the questionnaire, 150 of whom completed the questionnaire. Out of 150 questionnaires received, only 132 were fully filled, which are considered for the results.

7.1 Demographics of the Respondents

Statistical tools such as ANOVA, regression analysis and descriptive analysis are used to test the relationship between the level of the satisfaction, consumer preferences and the perception of the respondents in this study. The importance of the model under study and its effectiveness in understanding consumer behavior in Saudi Arabia is analysed in Table 1.

Table 1. Demographic Profile of the Respondents

Demographic Profile of the Respondents			
Factors	Options	No of Respondents	(%)
Gender	Male	80	60.6
	Female	52	39.4

Age	18-24 years	22	16.7
	25-34 years	34	25.8
	35-44 years	26	19.7
	45-54 years	43	32.6
	55+	7	5.3
Income	Less than 15000	10	7.6
	15000 – 25000	55	41.7
	25000 - 35000	236	19.7
	- 35000– 45000	26	19.7
	More than 45000	15	11.4
Employment status	Unemployed	16	12.1
	Employed	43	32.6
	Businessman	32	24.2
	Housewife	26	19.7
	Student	15	11.4
What payment methods do you use to pay for the products that you have purchased online recently?	Visa Card/MasterCard/credit card	78	59.1
	Businessman	48	36.4
	other please specify	6	4.5
How much do you know about mobile wallet	Yes I know about it and I've been using it	84	63.6
	I used it before	48	36.4
Where did you get information about mobile wallet	Internet	36	27.3
	Magazine	21	15.9
	television	50	37.9
	Social media Words of mouth	20	15.2
	Academic places conference seminar etc.	5	3.8

Source: Own study.

Table 1 discloses the demographic status of the respondents. There were 80 (60.6%) men and 52 (39.6%) women who answered the questionnaire. Five age groups were considered, from 18 to 24 years old, from 25 to 34 years old, from 35 to 44 years old, from 45 to 54 years old and over 55 years old. There were 22 (16.7%) respondents in the age group 18 to 24, 25 to 34 there were 34 (25.8%) respondents, in the age group 35 to 40 years old 26 (19.7%) respondents, in 45 to 50 years 43 (32.6 %) respondents and above 55 there were seven respondents which is 5.3%. Surprisingly, mostly mobile wallet users are between 25 and 34 years. Maximum mobile wallet users are the people in income level 15,000-25,000, i.e., 55 (41.7%) respondents.

If you consider the employment status, the service class people are the maximum mobile wallet user which is 43 (32.6%) respondents. In general, people use the Visa, MasterCard, and the credit card for online payments, of which 78 (59.1%) respondents fall in this category. We further asked the source of the information

from where they get the information of the mobile wallet surprisingly 50 (37.9%) people got the information from the ads shown on television and 36 (27.3%) respondents obtain the information from the Internet.

7.1.1 Relationship between the three Variables of Preference, Satisfaction, and Perception

The research considered the three variables of perception, satisfaction, and preference for the study on the uses of the mobile wallet under the perception considered the factors ease of use, attitude, social, security and utility, trust, self-efficacy and 'Hedonism'. 'Hedonism' is a new variable that is added to the previous variables defined by Dahlberg (Dahlberg *et al.*, 2015). Majorly the considerations were to pay bills, transferring funds, recharge, purchases and Gifts (Table 2).

Table 2. Relationship Between Variable Perception, Satisfaction And Preference

Relationship Between Variable Perception, Satisfaction And Preference							
	No Of Items	Mean	Std. Deviation	Perception	Satisfaction	Preference	significance
Perception	37	122.72	26.946	1			0.000
Satisfaction	7	22.20	6.867	.964**			0.000
Preference	5	20.51	2.333	.705**	.660**		0.000

Source: Own study.

Table 2 shows the relationship between the three variables is established with the help of the correlation coefficients. When the correlation analysis was carried out, the three variables were significant obtaining the value 0.000 which is less than the p value which is $p < 0.005$ concluding that there is a significant relationship between the perception satisfaction and the preference for the mobile wallet users.

The hypotheses H1, H2 and H3 are proved by it. Here it can be well inferred that there is significantly positive relationship between user's perception and satisfaction for the mobile wallet consumers, there is significantly positive relationship between user's satisfaction and preference for the mobile wallet consumers and there is significantly positive relationship between user's perception and preference for the mobile wallet consumers. It can be also inferred as that if the technology is easy and handy to use than only the user is interested to adopt it otherwise, he use to continue with the old one.

Tables 3 and 4 shows the results of regression analysis which also supports our results that there is positive and significant relationship between our three variables i.e., perception, satisfaction, and preference on using mobile wallet services.

Table 3. Regression Analysis Establishing Relationship Between Usage of Mobiles Wallet and the Variables Perception Satisfaction and Preference

Regression Analysis Establishing Relationship Between Usage of Mobiles Wallet and the Variables Perception Satisfaction and Preference	
Variables	$Y=A+\beta_1X_1 +\beta_2X_2+\beta_3X_3$
R	.423 ^a
R Square	0.179
Adjusted R Square	0.159
Std. Error of the Estimate	1.152
F	9.277
Sig.	.000 ^b

Source: Own study.

Table 4. Regression Analysis

Regression Analysis					
Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.357	0.986		4.419	0.000
PERCEPTION	0.014	0.015	0.305	0.952	0.343
SATISFACTION	0.051	0.055	0.277	0.919	0.36
PREFERENCE	-0.179	0.061	-0.333	-2.929	0.004
a. Dependent Variable: How often do you use mobile wallet services?					
b. Predictors: (Constant), PREFERENCE, SATISFACTION, PERCEPTION					

Source: Own study.

Chi square test was applied to test the significance of the perception variables. All the eight variables viz. ease of use, usefulness, confidence, 'Hedonism', social factors, self-efficiency, attitude, and security are significant as the p value is less than 0.005, which is well supported by our Table 5 inferring that the perception variables considered for the study are significant.

Table 5. Goodness of Perception Variables

Goodness of Perception Variables			
Variables	Chi-Square	df	Asymp. Sig.
Ease of use	103.227 ^a	14	0.000
Usefulness	124.485 ^b	7	0.000
Trust	114.758 ^c	16	0.000
'Hedonism'	236.182 ^d	9	0.000
Social	172.545 ^e	11	0.000

Self-efficiency	313.667 ^f	13	0.000
Attitude	729.909 ^g	18	0.000
Security	98.909 ^h	23	0.000
P < 0.005 i.e. significant			

Source: Own study.

In addition, we test the preference and satisfaction with the user's perception and usage with respect to gender for mobile wallet consumers if the gender is considered then the three variables preference, satisfaction and perception of the people the value p is greater than 0.005 it can be inferred that there is an insignificant difference in the consumers perception, satisfaction and preference in the use of mobile wallet with respect to the gender which is well supported by the results of Table 6. Both men and women who were using mobile wallets at the same frequency.

Table 6. User's Perception, Preference, Satisfaction and Usage with Respect to Gender for the Mobile Wallet Consumers

User's Perception, Preference, Satisfaction And Usage With Respect To Gender For The Mobile Wallet Consumers						
		Sum Squares	of df	Mean Square	F	significance
PREFERENCE	Between Groups	3.569	1	3.569	0.654	0.42
	Within Groups	709.423	130	5.457		
	Total	712.992	131			
SATISFACTION	Between Groups	44.297	1	44.297	0.939	0.334
	Within Groups	6133.18	130	47.178		
	Total	6177.477	131			
PERCEPTION	Between Groups	923.241	1	923.241	1.274	0.261
	Within Groups	94191.388	130	724.549		
	Total	95114.629	131			

Source: Own study.

We test the preference and satisfaction with the user's perception and usage with respect to age for mobile wallet consumers if the gender is considered then the three variables preference, satisfaction, and perception of the people the value p is less than 0.005 i.e., 0.003, 0.004, 0.002 respectively therefore it can be inferred that there is a significant difference in the consumers perception, satisfaction, and preference in the use of mobile wallet with respect to the age which is well supported by the results of Table 7. Both men and women of all age are using mobile wallets at the same frequency.

Table 7. *User's Perception, Preference, Satisfaction and Usage with Respect to Age for the Mobile Wallet Consumers*

User's Perception, Preference, Satisfaction And Usage With Respect To Age For The Mobile Wallet Consumers						
		Sum of Squares	df	Mean Square	F	significance
PREFERENCE	Between Groups	84.569	4	21.142	4.273	0.003
	Within Groups	628.423	127	4.948		
	Total	712.992	131			
SATISFACTION	Between Groups	701.82	4	175.455	4.069	0.004
	Within Groups	5475.657	127	43.115		
	Total	6177.477	131			
PERCEPTION	Between Groups	11828.503	4	2957.126	4.509	0.002
	Within Groups	83286.126	127	655.796		
	Total	95114.629	131			

Source: Own study.

8. Results and Discussions

The results of this study indicated that there is a positive relationship between the perception of difference and consumer satisfaction. This study also confirmed that the consumer's intention plays an important role in the use & adoption of any new technology. Their thoughts are influenced by social variables such as their family, friends, and society.

If mobile wallet user is satisfied with the advantages and features of the mobile wallet concerned, it is understood that consumer will prefer to use the services for all his needs increasing his satisfaction.

Age is considered an important factor that defines the intention and uses of new technology this study finds that surprisingly more than the younger generation, the 45-54 age group is more interested in using the new mobile technology to buy, recharge, transfer money and through mobile wallets as they are not interested in carrying money with them.

This study shows that gender has a negligible impact on the mobile wallet usage rate, as it can be inferred that both men and women work, and both use mobile wallet services and at the same rate.

9. Limitations and Future Research

Our study being one of its kind therefore it is important in analysing the features associated with the mobile wallet apps which are in race in Saudi Arabia. Subsequently it is significant in giving the organizations to redesign the versatile wallet applications by and large utilized in Saudi Arabia. This study is conducted in Dammam region which can be further enhanced on a larger platform.

According to the variable's preference, perception and satisfaction studied new features can be added to the previously available technology. Since one constraint is age therefore according to the data it can predict the new features which consumer wants in the existing technology.

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