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MEDIATION OF USER PERCEIVED VALUE AND SATISFACTION BETWEEN MOBILE -- WALLET QUALITY AND USER LOYALTY

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Abstract

The world of today is completely engrossed in digital technology and advancements; from everyday necessities to business, electronic device use at home and work has become the norm. Mobile wallets, which offer a variety of digital services ranging from e-tailing to utility payments, have revolutionized the global payment system. The mobile wallet market in India has seen growth because to the country's increasing use of smartphones and mobile internet. The current study successfully examined the mediation of perceived value and satisfaction in the link between mobile wallet quality and user loyalty in Bangalore City. Analysis was done on 406 respondents from Kadapa City, and their answers were examined. This research will support the creation of suitable mobile strategies.

Keywords: Mobile Wallets, Perceived Value, User Satisfaction, SEM, CFA

INTRODUCTION

The most significant factor promoting cashless electronic transactions is the m-wallet. The digital version of a physical wallet that is used to carry cash and make payments is a mobile wallet (S & Sumathy, 2019). In general, the term "mobile wallet" refers to financial regulation-compliant payment services performed via a mobile device. Customers may pay for a variety of goods and services using their mobile phones instead of cash, cheques, or credit cards. It is a prepaid electronic account that allows you to make purchases without needing to swipe a card or cash. The emergence of smartphones as payment instruments contributes to the expansion of mobile wallet transactions within the nation. A mobile wallet application functions as a virtual wallet that users may use to pay many bills at once by charging a predetermined amount of money to any service provider (George & Sunny, 2023). Numerous smaller firms are also joining the market, even while the major players are touting their expanding market share. Payment card details are kept in a virtual wallet on a mobile device called a mobile wallet. Merchants included on the mobile wallet service provider's list can accept payments using mobile wallets, which are a handy way for customers to make purchases at the business. Using a mobile wallet allows you to save



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your credit or debit card details digitally on your phone. You can use your smartphone, tablet, or wristwatch to make payments instead of your actual plastic card (Routray et al., 2019).

The mobile wallet market refers to the ecosystem of digital platforms and applications that enable users to store, manage, and transact money electronically using their smartphones or other mobile devices. Mobile wallets offer a convenient and secure alternative to traditional payment methods such as cash, checks, or physical credit/debit cards. Anyone can use them at any merchant where digital payment is widely accepted (Vijai, 2019). The need for a faster and more convenient way of money transfers is compelling people to use mobile wallets, which are gradually becoming more common and preferred by customers. Mobile wallets often integrate with other apps, including ride-sharing, online shopping, and food delivery services, enabling users to make payments conveniently within those apps. Digital wallets such as Phonepay, Googlepay, PayTM, Wallet, Google Wallet, and Samsung also allow users to store and use loyalty cards, membership cards, coupons, boarding passes, event tickets, and other items on their smartphones.

The market of mobile wallets has up trending in recent times. The adoption of UPI rising rapidly in India, the average ticket size of UPI P2M (person to merchant) transactions is steadily increasing, while P2P (person to person) transactions are decreasing. The India Mobile Payments Market size is USD 0.81 trillion in 2024 and is expected to reach USD 2.61 trillion by 2029, growing at a CAGR of 26.52% by the end of 2029). Increase in the online stores, and the wide range of product offers and discounts, apart from the increase in the usage of smartphones, and rise in the internet penetration have fuelled growth in the mobile wallet market. The wallet service providers by keeping all these are continuously on their toes to give their best to the users. The good quality of the services if received, the users generally tend to have positive value for the service and satisfaction, and in turn, they become loyal to the wallet services. However, even after the higher level of service delivery by the m-wallet providers, even after a virtuous level of satisfaction the users are not turning into loyal users. If the scenario is continuous, then the companies of service delivery may face difficulties. Hence, the present study aims to examine the role of perceived value and satisfaction as mediators in the mobile wallet service quality-loyalty relation in the context of Indian users.

LITERATURE REVIEW

Mobile Wallet Quality

One of the easiest ways to make multiple online payments at any time of day or from any location in the globe is by employing an electronic wallet. Consumers may trade across a variety of channels, including consumer-to-business, consumer-to-consumer, consumer-to-machine, and consumer-to-online, using mobile wallets (Lee, 2019). Trilok Nath Shukla (2016) opined that business people are enjoying the advantage of the opportunities of cashless transactions like mobile wallet usage. He added that mobile wallets are adopted by almost all the channel levels in the business, from consumers, retailers, marketers, and digital businesses across all the regions. S Manikandan and J Mary Jayakodi (2017), have opined that ease of use, continence in the usage, money demonetization, increased security in online transactions, reduced risk factors, and awareness among users have paved the way to adopt mobile wallets.

Interrelationships among Mobile Wallet Quality and User loyalty

Dhaigude et al. (2023) explored the active role of mobile wallet quality on user loyalty intentions. They examined the perceptions of 214 respondents collected through a structured questionnaire. They revealed that the mobile wallet quality dimensions have an impact on customer loyalty. An increased level of service through mobile wallets significantly increases the re-use intentions among the users. Al-Hattami et al. (2023), added that the mobile wallet quality determinants like quality service, privacy and security, and trust have a direct bearing on customer loyalty. And Erdiyanto & Adhilla (2020) Ardy Erdiyanto (2020), has found similar results for investigation. Based on the shreds of evidence of the previous relationships the present hypothesis is formulated as

H1: Mobile Wallet Quality Positively Influences User Loyalty

Mobile Wallet Quality and User Satisfaction

Plenty of research papers found that explain the relationship between service quality and customer satisfaction, but in the context of the mobile wallet sector, the studies few. Mobile wallet service dimensions play a crucial role in predicting the loyalty of mobile wallet users. Purnama et al. (2021), have considered transaction experience, transaction failure, and after-failure recovery as the mobile wallet dimensions. They exposed that these dimensions do have a positive impact on user satisfaction. Widarto Rachbini (2022), added the app experience, product experience, brand experience, and customer service experience as the mobile wallet factors. They empirically proved the relationship between mobile wallet factors and customer satisfaction. Additionally, Astri Wulandari (2020), also explored the relationship between the mobile wallet quality dimension and customer satisfaction in the Indian context. Their study stated that the sub-structure, consumer perception directly affects user satisfaction of mobile wallets. Based on these evidences, the hypothesis can be formulated as

H2: Mobile Wallet Quality Positively Influences User Satisfaction

Mobile Wallet Quality and Perceived Value

One general idea that may be assessed using a self-reported item (or collection of items) is called a perceived value (Brady and Robertson). Dhaigude et al. (2023), stated that the perceived value is an outcome of the mobile wallet quality. They examined the relationship between mobile wallet service quality on the perceived value and proved the relationship. With these results, the hypothesis can be designed as

H3: Mobile Wallet quality positively influences the Perceived Value

Perceived Value and User Satisfaction

A study carried out by Dhaigude et al. (2023), revealed that customer-perceived value is a crucial predictor of customer satisfaction. Finally, this study recommends that managers should emphasize leveraging trust and satisfaction to shape loyalty in addition to customer value.

H4: Perceived Value positively influences user satisfaction

Perceived Value and User Loyalty

H4: Perceived Value positively influences user loyalty

User Satisfaction and User Loyalty

H4: User satisfaction positively influences user loyalty

Mediation of Perceived Value between Mobile Wallet Quality and User Loyalty

Various authors extensively studied the perceived value and its relationship with mobile quality parameters and loyalty intention to reuse the services. Dhaigude et al. (2023), revealed that the mobile wallet dimensions do have a positive effect on the customer perceived value and in turn, the perceived value influences customer loyalty.

H4: Perceived Value mediates the relationship between Mobile wallet quality and user loyalty

Mediation of User Satisfaction between Mobile Wallet Quality and User Loyalty

Many studies have explored the mediating relationship of perceived value between mobile wallet quality and user satisfaction. According to Erdiyanto & Adhilla (2020), usage of mobile wallets across the globe has increased and Go-Pay is the widely accepted mobile wallet. He made an investigation by taking user satisfaction as a mediator between mobile wallet quality parameters and user loyalty. He stated that the quality attributes of the mobile wallet services have a direct impact on user satisfaction and user satisfaction transmits the effect of mobile wallet on user loyalty. A study carried out by Wulandari et al. (2020), also revealed that the increase in the delivery of the service leads to an increase in user satisfaction, and the satisfaction is significantly mediated towards user loyalty.

Various studies (Dhaigude et al., 2023) proved the same relationship. Based on the mentioned studies, the hypothesis can be formulated as

H5: user satisfaction mediates the relationship between Mobile wallet quality and user loyalty

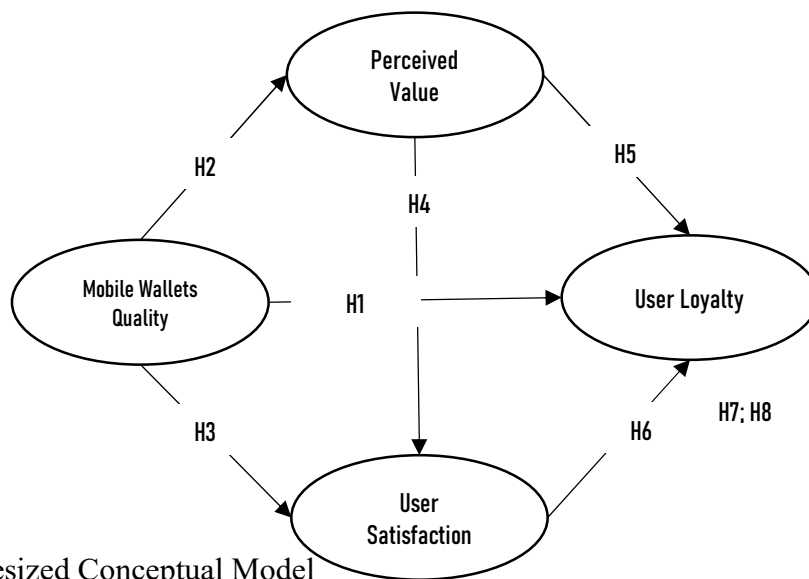


Figure 1 Hypothesized Conceptual Model

MATERIALS AND METHODS

Methods:

The study adopted a mixed approach for assessing the impact of Mobile wallets on User loyalty with the mediation of perceived value and satisfaction. The researcher implemented a Convenience sampling technique for the collection of the sample data.

Participants:

A total of 450 respondent respondents were approached and 406 responses were identified as suitable to execute the analysis.

Instruments:

The questionnaire was designed on a 5-point Likert scale ranging from strongly disagree to strongly agree. Suitable scales were adopted from established sources.

Mobile Wallet Adoption Questionnaire: A 20-item scale developed by (Ajina et al., 2023) was adopted for the study to measure mobile learning practices among respondent respondents.

Perceived Value scale: An eight-item scale established by (Sweeney & Soutar, 2001) was adapted and slightly adjusted to suit the present study requirement.

User Satisfaction Scale: An eight-item scale developed by (Nurchahyo et al., 2023) was adopted to assess the respondent's User Satisfaction.

User Loyalty Scale: An eight-item scale developed by (Li & Aham-Anyanwu, 2014) was adopted to assess the respondent's User Satisfaction.

RESULTS AND DISCUSSION

The data analysis was carried out using different statistical tools and techniques. Reliability for assessing the internal consistency, validity for assessing the predictability of the measure, and Structural equation modeling for assessing the direct and indirect effects with model fit values were applied using SPSS and AMOS.

Model fit, Reliability, and Validity Measures

A model was developed by constructing the study variables such as mobile wallet dimensions, perceived value, and User Satisfaction. This model is then verified with fitness, reliability, and validity. The model fit was adjudged with the help of various important fit indices like the Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Root Mean Square Error Approximation (RMSEA), and chi-square/df ratio.

Table:2

Model fit measures

Measure	χ^2	Df	χ^2/df	GFI	CFI	RMSEA
Estimate	427.860	74	5.68	0.958	0.976	0.045
Threshold			1-8	>0.90	>0.95	<0.08

The results of the model fit measures show that the GFI value of 0.958 and RMSEA value of 0.045 meet requirements of >0.9 and <0.045 denotes that the sample is the approximation of the total population. The resulting CFI value of 0.976 was also found greater than 0.95 indicating that the model is a better fit and

the chi-square/df value of 5.69 reflects the model acceptance (Hair Jr. et al., 2014; Hu L.-T. & Bentler P. M., 1999).

Convergent and discriminant validity

Table:3

Convergent and discriminant validity

Variables	CR	AVE	MSV	MW	PV	US	UL
MW	0.919	0.739	0.224	0.860			
PV	0.887	0.610	0.505	0.474	0.781		
US	0.877	0.589	0.505	0.066	0.711	0.768	
UL	0.824	0.538	0.512	0.061	0.732	0.777	0.788

A measure of a scale's internal consistency that is frequently referred to as composite reliability (Netemeyer et al., 2003). Every construct, including mobile wallets, perceived value, and user satisfaction, has **construct reliability** values that are higher than the conventional cutoff point of >0.70. It indicates the trustworthiness of the measurement model. Standardized factor loadings and Average Variance Extracted (AVE) were used to evaluate **convergent validity**. The AVE values of the constructs and the standard estimates of all the measurement model elements obtained vary from 0.50 to 0.70 and 0.58 to 0.73, respectively, satisfying the minimal condition of 0.50. By comparing the Maximum Shared Variance (MSV) with AVE or the Square Root of AVE with Inter-Construct Correlations, **discriminant validity** was assessed. All the constructs' MSV values were found to be higher than their corresponding AVE values, and all the constructs' square roots of AVE values were found to be higher than inter-construct correlations. This suggests that there were differences between the constructs in the model (Byrne & van de Vijver, 2010) (Hair Jr. et al., 2014)

Structural Equation Modeling Results

The structural model explains the relationship among constructs. The model explains the correlational links between observed variables like Mobile Wallets and latent variables like perceived value and User Satisfaction. Mobile Wallets are treated as an exogenous variable, User loyalty as an endogenous variable, and user satisfaction and perceived value are treated as mediating variables.

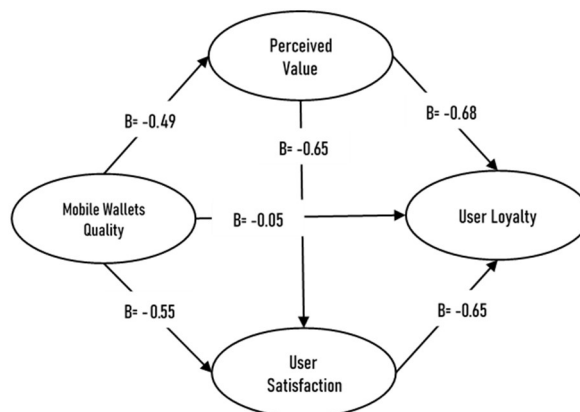


Figure 3 Validated Model

Direct Effects

The direct effects are the paths from the independent variable to the dependent variable without any intervention variable. The direct effects and hypotheses results connected to the structural model are presented in Table 4.

Table 4

Direct effects

Hypothesis	Path	Estimate	SE	CR	P-Value	Result
H1	MW → UL	.051	.065	1.166	1.122	Not Supported
H2	MW → PV	.490	.044	9.662	***	Supported
H3	MW → US	.556	0.37	9.287	***	Supported
H4	PV → US	.658	0.46	10.332	***	Supported
H5	PV → UL	.680	.079	12.861	***	Supported
H6	US → UL	.655	0.58	12.887	***	Supported

The standardized coefficient value 0.051 for the paths from Mobile Wallets to User Loyalty (p-value 1.122) denotes that the Mobile Wallets Quality did not have a direct effect on User Loyalty. Hence, H1 is not supported. The standard coefficient value of 0.490 for the path MW → PV was found significant (p-value; 0.000) indicating that Mobile Wallets have a significant positive effect on the perceived value of respondents. Hence, hypothesis H2 is supported. The path weight value from Mobile Wallet to User Satisfaction (0.556), was significant (0.000) and so, hypothesis H3 was supported. The path weight value from perceived value to User satisfaction (0.658), was significant (0.000) and so, hypothesis H4 was supported. The standard coefficient value of 0.680 for the path Perceived value → User loyalty was found significant (p-value; 0.000) indicating that perceived value has a significant positive effect on the user loyalty of respondents. Hence, hypothesis H5 was supported. The standard coefficient value of 0.655 for the path user satisfaction → User Loyalty was found significant (p-value; 0.000) indicating that user satisfaction has a significant positive effect on the user loyalty. Hence, hypothesis H6 is supported.

Mediation of Effects of Perceived Value and User Satisfaction

The mediation effect is the intermediary effect in the causal relationship between exogenous and endogenous variables. Perceived Value (PV) and User Satisfaction (US) are assumed as mediators in the link between Mobile Wallets and User Satisfaction.

Table 5

Indirect Effects

Hypothesis	Indirect Path	Unstandardized Estimate	Lower	Upper	P-Value	Standardized Estimate
H7	MW --> PV --> UL	0.472	0.234	0.514	0.000	0.422
H8	MW --> US --> UL	0.404	0.290	0.598	0.000	0.402

The unstandardized coefficient values for the indirect path from Mobile Wallets to User loyalty through perceived value (0.422) are significant (0.000) and hence, hypothesis H7 was supported. The unstandardized

coefficient values for the indirect path from Mobile Wallets to User loyalty through user satisfaction (0.402) are significant (0.000) and hence, hypothesis H8 was also supported.

DISCUSSION AND CONCLUSION

The present study was initiated to assess the impact of Mobile wallet quality on User loyalty through their perceived value and Satisfaction. The structural equation Modeling was applied for this purpose and executed with software like Amos. The study results revealed that Mobile Wallets affect User Satisfaction. Mobile Wallets also affect the perceived value. The study revealed that the perceived value and user satisfaction both mediate the link between Mobile Wallets and User loyalty.

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