

E-wallet and Women in India

Drivers of Post-Adoption Intention and the Divide Across Age

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Abstract: The post-pandemic era witnessed an upsurge in digital wallet usage. The purpose of this cross-sectional study is to empirically examine the factors influencing the post-adoption intention of e-wallet users among Indian women and the digital divide across age groups. Validated questionnaires were used to collect data from female respondents across India. Path analysis using structural equation modelling was used to examine the driver of continuous intention for e-wallets, and the study demonstrates that user satisfaction and the perceived security and usefulness of e-wallets had a significant impact on post-adoption behaviour among women. Perceived confirmation, usefulness, and trust influence user satisfaction among women. However, contrary to expectations, the study found no significant difference in the continuous adoption behaviour of different age groups of urban women, indicating a lack of digital divide among urban women across age.

Keywords: E-wallet usage, Confirmation, Perceived Security, Perceived Usefulness, Trust

Introduction

Digital wallets have revolutionised modern life by gaining credence among people the world over. They have diminished the need to carry physical cards while shopping or travelling. Digital wallets permit consumers and businesses to accept payments, receive funds, or send and receive remittance funds without having a bank account in a physical branch but in online

accounts, thereby making financial inclusion possible in unbanked and under-banked communities. The growing popularity of e-wallets has transformed the way organisations do business and led to the emergence of many fintech companies globally. Thus, e-wallets are making a tangible social impact. The new-generation e-wallets have seamless integration with the world's leading payment systems, thereby giving consumers a better user experience, greater interoperability, scalability, and security. It also covers the needs of physically impaired audiences, paving the way for social inclusivity. The *Hindustan Times* on January 20, 2023, reports that India's digital payments transactions for 2022 exceeded the combined digital payments of four big economies: the US, UK, Germany, and France ([HT News Desk, 2023](#)). The Indian statistics show that women accounted for 51.8 percent of all workers employed in management, professional, and related occupations in 2020; hence, this study is highly relevant in the post-pandemic era.

This research aims to explore the factors prompting Indian women to pursue the continuous usage of e-wallets and to investigate if a digital divide exists among Indian women that determines their perception and behaviour regarding the usage of e-wallets. This study is therefore a cross-sectional one among Indian women.

Status of E-wallets among Women in India

The survey conducted by YouGov ([2021](#)) a British international Internet-based market research organization, in 2021 shows that the spread of the pandemic has accelerated the adoption of e-wallets, and currently two-thirds of urban Indian women use digital modes of payment on a general basis. The survey also shows that women predominantly use e-wallets for mobile recharges, payment of utility bills and transactions related to delivery services. The other areas where women in India use digital wallets are for shopping bills, fund transfers, travel and leisure bookings and toll-road charges. Further, the survey shows that Google Pay emerged as the top choice of e-wallets among females in India followed by Paytm. Other apps, like PhonePe, Amazon Pay, and BHIM, were far behind in terms of their popularity among Indian women. Thus, digital wallets have begun to outpace the use of debit cards and credit cards. Digital wallets have opened venues for buy now, pay later (BNPL), crypto currency, and cross-border payments.

Reaching financial equality through digital wallets

The demographic profile of the Global Findex 2021 survey highlights that the average female digital payment app user in India is young; the majority of women fall in the age bracket of 30-39 years, married & residing in tier-1 cities ([World Bank Group, 2021](#)). These women in the age group of 30-39 years are found to be more prudent with finance as compared to the

previous generation and they search for profitable ways to invest their money, but their willingness to take risks with money is found to be slightly lower compared to their predecessors. However, in rural areas, the majority of women have no bank accounts as compared to their male counterparts. India had over 63 million micro-, small and medium enterprises in 2020, the majority of which are in rural areas and the mass of which are owned by women. Thus, women, both in rural & urban India, have immense potential to generate, save, and spend their own money. They can not only profit for themselves but also contribute to the community they are a part of. In certain rural areas, women hand over their daily wages completely to their husbands or father and they have no say in how the money is spent or saved. Digital literacy and digital payment training can be used to empower these women with digital accounts and this can not only be life-changing for women but can also be economically beneficial to them.

Gender gaps in mobile ownership also have to be addressed while transitioning to digital payments. However, the availability of low-priced smart phones in Indian markets and fair tariff prices have added momentum to the use of digital wallets. The availability of user-friendly mobiles is enabling even non-tech-savvy women to use e-wallets. Digital wallets can transform the lives of two million women members who work in the informal sector. Financial inclusion of women can enhance their social status, gain greater control over their life and make their own decisions. Thus, the use of digital wallets among women acts as a driver of women's economic empowerment, and deeper financial inclusion; and provides greater bargaining power.

Literature Review

As the market for e-wallets continues to grow in India, it is essential to understand the factors that influence Indian women's adoption and intention to continue using e-wallet services. Applying the Expectations Confirmation Theory (ECT) ([Oliver, 1980](#)), post-adoption satisfaction of e-wallets results from a customer's comparison of performance (of a product or service) with predetermined standards of performance. According to this view, the predetermined standards are the customer's predictive expectations and any disconfirmation of beliefs results in dissatisfaction. Confirmation is attained when a service is performed as expected ([Tzeng et al., 2021](#)). Thus, ECT theory propounds that perceived usefulness, coupled with confirmation of belief, leads to satisfaction. ECT is used in marketing to understand consumer satisfaction and post-purchase behaviour. Consumers have favourable or unfavourable intentions toward specific new technology based on the perceived usefulness received from new technology ([Sheth, 2021](#)). The Expectations Confirmation Model (ECM) emphasizes the importance of post-adoption expectations over pre-adoption expectations,

especially in the case of information technology products. Perceived Usefulness is a function of post-use expectancy, and any disconfirmation of this belief leads to discontinuation of the use of a product or service. According to Bhattacharjee (2001), the higher the level of expectation confirmation, the more useful the system is to the user, the more satisfied the user is with the system, and the higher the user's intention to continue using such a system. In the case of e-wallet applications, the user has to really feel the application's usefulness, which will induce satisfaction while using its features and motivate the user to continue using this e-wallet service. Shang & Wu (2017) emphasized Perceived Value in addition to confirmation to examine the factors that influence consumers' intention to continuously use mobile shopping apps. The confirmation of expectations is linked to the quality level of the service and the user experience the individuals derive from usage. Thus, the researchers want to investigate whether **Confirmation has a direct positive effect on customer satisfaction with digital wallets.**

Bhattacharjee (2011) argued that the perceived threat is minimized once the actual usage experience validates the security measures. Cao (2016) found that perceived confidence, perceived ease of use, perceived pleasure, perceived behavioural control, perceived utility, and subjective norm profoundly impact consumer behaviour intention.

Hajazi *et al.* (2021) studied the impact of perceived usefulness, perceived ease of use, perceived security, perceived compatibility, social influence, rewards, and personal innovativeness on millennials in Malaysia and it was found that, except social influence, all other factors had a significant and positive relationship with usage intention of QR mobile payment system. Contrary to this study, Khalifa & Shen (2008) and Mun *et al.* (2017) claimed that social stimulus had a substantial impact on the willingness to use e-wallets.

Studies by Kustono *et al.* (2020) showed that application quality, perceived usefulness, perceived ease of use, and attitude toward using e-wallets was the major predictor of usage behaviour among Indonesians.

The research by Amoroso & Magnier-Watanabe (2012) on consumers in Japan throws light on the construct attractiveness of other alternatives and switching costs, which has a deep influence on the adoption of a particular means of e-payment. This study also emphasized the culture of the society, which works as a push factor for easy adoption among citizens.

The majority of studies conducted in India on the financial technology sector emphasized Perceived Usefulness, Perceived Security & Trust. The study by Seam *et al.* (2017) pinpoints that convenience and rapid processing are recognized as key factors that influence the acceptance of e-wallets. Dastan & Gürler (2016) considered that perceived confidence, perceived versatility, and behavioural factors positively impacted the acceptance of e-payment

services. Perceived usefulness is the extent to which a person believes that using a particular use of product or service would improve their life quality ([Daragmeh et al., 2022](#)). In view of the above studies, the researchers test whether **Perceived Usefulness has a direct positive effect on customer satisfaction with digital wallets.**

Women especially are cautious when it comes to security and finance. Perceived Security refers to the extent to which a user believes that the use of a particular technology for online payment is safe and does not pose a risk of loss of information or privacy ([Chawla & Joshi, 2019](#)). Lack of security and fear of loss of privacy reduces user satisfaction and trust. Security is vital to the adoption and acceptance of a service, as well as to continue the usage of the same service or product for a longer period. Leong *et al.* ([2020](#)) proved that the influence of security is not limited to the initial stage of technology use and acceptance, but extends to the user's intention to continue using a particular technological system. Thakur and Srivastava ([2014](#)) has empirically shown that adoption readiness and perceived risk have a significant impact on usage intention for mobile payments in India. Xavier & Zakkariya ([2021](#)) emphasize hedonic value derived from the use of mobile wallets. In light of these results, the researchers examine whether **Perceived Security has a direct positive effect on customer satisfaction with digital wallets.**

Trust is the confidence the user has in the mobile device and the application while using it for online financial transactions. Trust denotes the positive perception the user has toward the e-wallet. Perceived security and trust are the most vital antecedents of continuous intentions to use e-wallets. Trust also has a profound impact on user satisfaction ([Susanto et al., 2016](#)). Several studies like Safari ([2012](#)), Sevim & Hall ([2014](#)) and Bauman & Bachmann ([2017](#)) focusing on the marketing of online services have found that trust is an essential factor for online customers. The perceived threat is minimized once the actual usage experience validates the security measures, so the overall perceived security is improved after adoption. Consumers, especially women, are more likely to form a strong bond with a service provider if they trust it. The stronger this bond the greater is the chance that they will continue using this application and service for a longer period ([Rotter, 1980](#)). On the above considerations, the researchers test to bring out whether **Trust has a direct positive effect on customer satisfaction with digital wallets.**

The research done by Dhingra *et al.* ([2020](#)) shows that the popularity of e-wallets in the capital city of Delhi was much less during the pre-pandemic days which prompted their study. The main reason for the non-popularity during pre-pandemic days was found to be a security concern, non-acceptability at places, technical illiteracy and lack of Internet connectivity. This situation changed drastically after the pandemic when consumers sought ways to reduce the number of transmission points by reducing convenience and ease of use. The current statistics

reveal that India, which formerly had a cash-based economy predominately, now leads the globe in real-time digital payments, accounting for about 40% of all such transactions, in only six years ([The Economic Times, 2023](#)). The widespread use of the Unified Payments Interface (UPI) during the COVID-19 pandemic went far beyond metropolitan areas to include rural India, which astounded the specialists. The Indian Government has leveraged the use of e-wallets by routing smaller transactions through UPI wallets on mobile devices. It helps reduce the volume of bank transactions by acting as a prepaid instrument. By reducing the risk of transactional failure, merchants will be more likely to accept the payment. Thus, UPI was the pioneer in driving digital transformation in the payment industry. India's Generation Z and Millennials have completely embraced digital wallets; and improved customer experience is the primary goal of all consumers. Throughout this paper, the terms "digital wallets" and "e-wallets" have been used interchangeably to refer to software, electronic devices, or online services that allow individuals or businesses to make compact and secure electronic transactions.

Kumar *et al.* (2018) revealed that, amidst the demonetization in India in 2018, the cash crunch had a significant influence on intention to use the mobile wallet, though it did not significantly influence the perceived security.

In the context of these earlier studies, this research intends to conduct a cross-sectional study on the digital wallet usage behaviour of Indian women and the factors influencing their continued usage, using the conceptual framework of Expectations Confirmation Theory. Hence, from the previous literature, Confirmation, Perceived Security, Perceived Usefulness and Trust have been identified as the factors shaping the usage behaviour of digital wallets among Indian women. The Expectation Confirmation Model (ECM) clearly depicts the impact of a user's expectation and confirmation on their satisfaction. The ECM model is apt to explain the continued usage intentions. When an individual starts to use a product or service, the user will gradually form an understanding of its performance, which they will compare to the initial expectations, so that they can evaluate to what extent the initial expectations are met. Thus, it throws light on the post-acceptance variables. Bhattacharjee (2001) opines that the higher the level of expectation confirmation, the more useful the system is to the user, the more satisfied the user is with the system, and the higher the user's intention to continue using such a system. In the above regard, researchers investigate whether **Customer Satisfaction has a direct positive effect on the continuous usage of digital wallets.**

Figure 1 shows the study's suggested model. This study focused on perceived security, perceived utility, confirmation, and trust as independent variables following a thorough examination of the body of current literature. This research will examine how these variables

affect user happiness, which in turn affects consumers' intentions to adopt new technologies continuously.

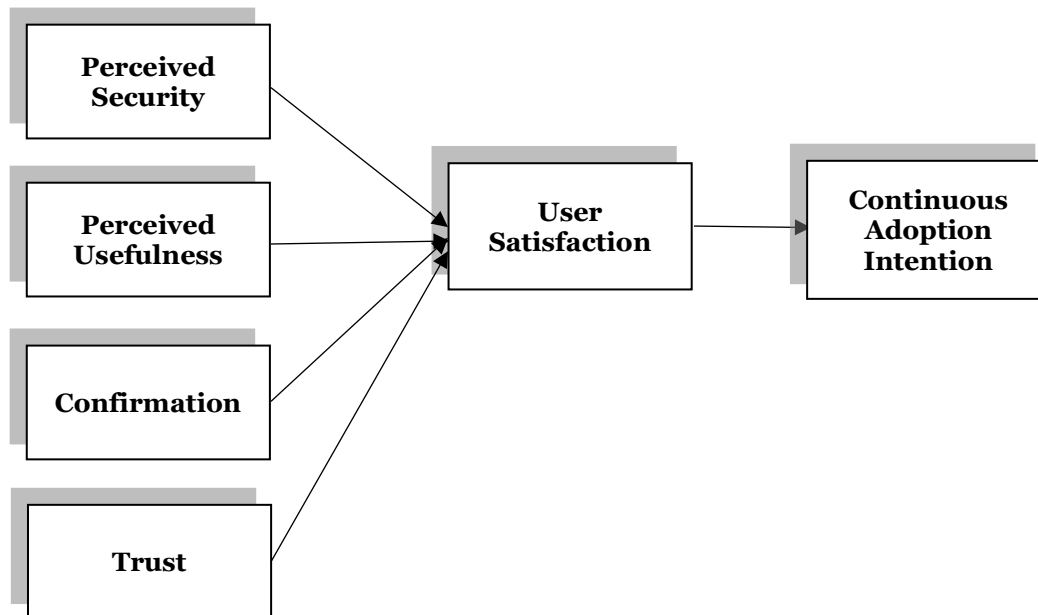


Figure 1. Proposed Model

Research Methodology

To test the research hypothesis, a three-part questionnaire was developed. A survey was conducted through a mall intercept method to collect the needed data. In this study, the independent variables' effects on the continuous adoption intention are examined, as depicted in Figure 1.

Measurement development

The questionnaire was developed based on the research model that was proposed after conducting an extensive literature review. The first session of the questionnaire focused on the demographic data of the participants, like age, gender, income, occupation, etc. The second session consisted of questions on the respondent's usage of e-wallets. The third session consisted of 18 Likert-scale questions that were used to measure the six constructs. All of the constructs used in this study were taken from existing sources to ensure content validity. The constructs for measuring variables such as confirmation and users' continuous intentions were adapted from Bhattacharjee (2001). Measures of customer satisfaction were adapted from Rahi *et al.* (2020). The measures of perceived usefulness were adopted from Daragmeh *et al.* (2021) and items to measure trust were adopted from Kumar *et al.* (2018). Finally, measures of perceived security were adopted from Gao *et al.* (2015). The items were measured using a 5-point Likert scale ranging from 1 for "strongly disagree" to 5 for "strongly agree".

Data collection

The study targeted e-wallet users in India. Since this study is on the factors that impact e-wallet users among women, data was collected from women of different age groups in India. A pilot study of 20 respondents was conducted to ensure there was clarity in the questions, and, based on their responses, a few questions were rephrased and one additional question was incorporated in the final questionnaire. The reliability of the constructs was computed using Cronbach alpha values, and the values were found to be greater than 0.75 for all 6 constructs, thereby indicating satisfactory ([Malhotra & Dash, 2020](#)).

A mall intercept method was used to collect data. The researchers intercepted target populations in major malls in India. This method was selected as target audiences of different demographics could be intercepted for data collection. In some cases, the survey was administered on the spot, and, in others, the Google Form was sent to their email address or WhatsApp. The questionnaire was circulated to 350 members of the target population, but only 240 responses were received, of which 217 were valid and were taken for further research. In the sample, 82% of those polled were under the age of 56, while 18% were over the age of 56. The minimum age of the respondents was 25 years, and the maximum was 70 years. Of the 217 respondents, 66.8% are employed, 16% are stay-at-home moms, and 17% are retired. Surprisingly, more than 93% of respondents had a bachelor's degree or higher.

With respect to their e-wallet behaviour, 35% said they use them daily, while 33% said they use them less than five times per week. About 83 % of the respondents have been using e-wallets for more than one year.

Data Analysis and Results

This study has two objectives. The first goal was to identify the factors that influence women's continuous intention towards e-wallet adoption. This objective was assessed using path analysis using structural equation modelling (SEM), which is a tool to empirically test the proposed research model. SEM is a very useful confirmatory model in research to evaluate the measurement instrument and test the hypothesis ([Malhotra & Dash, 2020](#)). The second objective was to evaluate the existence of the digital divide among women of two different age groups—56 years and below; and above 56 years. An independent sample t test, a technique used to compare the means of two independent groups, was used to ascertain if the two samples were identical or different.

Measurement model—path analysis

The first step in SEM is to assess the measurement model. The construct reliability was measured using Cronbach's alpha, and the alpha values were found to be greater than 0.75 for all the items, thereby confirming adequate reliability. The SEM results show good model fit (refer to Table 1). In this case, the structural model yielded a CMIN/DF ratio of 2.79 (Table 1), which is within the threshold value of 3.00 (Hair *et al.*, 2010).

Table 1. Goodness of fit indicators in structural model

Fit Indices	Observed Value	Acceptable Threshold Value
CMIN/DF	2.79	≤ 3 (Hair <i>et al.</i> , 2010).
GFI	0.989	> 0.90 (Hair <i>et al.</i> , 2010).
CFI	0.989	≥ 0.90 (Hair <i>et al.</i> , 2010).
TLI	0.917	≥ 0.90 (Marsh <i>et al.</i> , 2005).
IFI	0.989	≥ 0.90 (Hair <i>et al.</i> , 2010).
AGFI	0.886	≥ 0.85 (Schermelleh-Engel <i>et al.</i> , 2003).
NFI	0.985	≤ 0.08 (Bentler & Dudgeon, 1996).
P Close	0.089	> 0.05 (Hu & Bentler, 2009).

CMIN/DF: Minimum discrepancy function by degrees of freedom; GFI: Goodness of Fit Index; CFI: Comparative Fit Index; TLI: IFI: Bollen's IFI Tucker-Lewis's index; AGFI: Adjusted Goodness of Fit Index; NFI: Normed Fit Index. Source: Primary Data Analysis

The goodness-of-fit statistic (GFI), which calculates the proportion of variance, demonstrates a value of 0.989. The comparative fit index (CFI) is an extended form of the NFI that takes sample size into account. Its threshold values are also similar to those of NFI, with values closer to 1 considered good fits; values above 0.90 (Hair *et al.*, 2010) are also considered to be good. The study reports CFI = 0.989 and NFI = 0.985 (Table 1), indicating a good model. The adjusted goodness-of-fit index (AGFI) evaluates the issue of bias from model complexity. The Tucker-Lewis Index (TLI) is an incremental conformity index that compares the model tested with the baseline model. In this study, TLI was 0.917. The values for the AGFI also range between 0 and 1, with values closer to 1 indicating a good fit. However, threshold values greater than 0.85 may be considered an acceptable fit (Schermelleh-Engel *et al.*, 2003). IFI, also known as Bollen's IFI, is also relatively insensitive to sample size. Zero indicates having the worst possible model, and a value of one indicates having the best possible. The study reports IFI = 0.989 (Table 1). The p-close value was 0.089, which was greater than the acceptable lower threshold limit of 0.05 (Hu & Bentler, 2009).

With all the indices collectively indicating good fit, the hypothesised model depicting the relationship between the drivers of e-wallet users and its impact on continual intention was found to be fit for further analysis. Path analysis using SEM was conducted to test the hypothesis. The hypothesis was tested, and the results are as given in Table 2.

The outcomes of the path study using structural equation modelling are shown in Figure 2. The e1 and e2 in the figure stand for measurement errors in each item, which is the residual variable produced by the statistical model. The path analysis shows confirmation, perceived security, perceived utility and trust as predictors of user satisfaction. The values on the unidirectional arrows indicate the standardised regression weights as shown in Table 2, whereas the bi-directional arrows indicate the covariance between the predictor variables.

Table 2. Outcome of the hypothesis evaluation of the structural model

Hypothesis	Std Reg. Wts	S.E.	Critical Value	Significance	Results
Satisfaction <--- Confirmation	.34	.05	5.77	<0.05	Significant
Satisfaction <--- Perceived Security	.05	.05	.90	.37	Not Significant
Satisfaction <--- Perceived Usefulness	.27	.05	4.83	<0.05	Significant
Satisfaction <--- Trust	.29	.05	5.01	<0.05	Significant
Continuous Intention <--- Satisfaction	.40	.07	6.70	<0.05	Significant
Continuous Intention <--- Perceived Security	.21	.06	4.04	<0.05	Significant
Continuous Intention <--- Perceived Usefulness	.32	.07	5.63	<0.05	Significant

Std. Reg. Wts: Standardised Regression Weights. Source: Primary Data Analysis

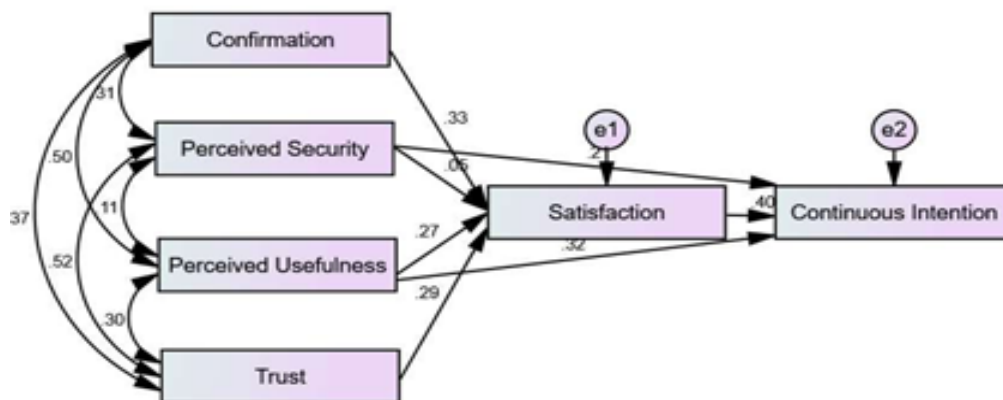


Figure 2. Path Analysis using Structural Equation Modelling

The results of the path analysis show that confirmation, perceived usefulness, and trust have a direct and significant impact on the respondent’s satisfaction with e-wallets (refer Figure 2). Of the four, confirmation has the greatest influence on e-wallet user satisfaction, with a regression coefficient of 0.335. This is consistent with previous studies (Foroughi et al., 2019; Rahi et al., 2020). This means that service providers must ensure that they deliver on their promises in order to enable continuous intention. In line with the previous literature, trust was found to have a positive impact on the satisfaction of e-wallet users. Also, the effect of perceived security on satisfaction was found to be insignificant; however, perceived security

was found to have a direct impact on continuous intention (refer Figure 2). That is to say, service providers have to ensure the security and privacy of the e-wallets in order for women to have a continual usage intention. These results are in agreement with the existing study on e-wallets done in Palestine (Daragmeh *et al.*, 2022). Perceived usefulness and perceived satisfaction were found to have a significant impact on the post-adoption behaviour of women e-wallet users (Duarte *et al.*, 2018; Hsu *et al.*, 2010).

Cross-sectional analysis using independent sample t test

The study's second goal was to see if the adoption of e-wallets differed across different groups of women. Respondents were divided into two age groups to study the digital divide among women in India: 56 and under; and 56 and above—56 is the retirement age. The researchers used an independent sample t-test to assess if the digital divide exists in these two age groups.

Table 3. Statistics -Cross sectional Comparison

Cross sectional Comparison					
	Age	N	Mean	Std Deviation	Std Error Mean
Confirmation	56 years and below	179	12.44	1.79	0.13
	Above 56 years	38	12.21	1.42	0.23
Perceived Security	56 years and below	179	9.23	1.80	0.13
	Above 56 years	38	9.53	1.18	0.19
Perceived Usefulness	56 years and below	179	13.53	1.70	0.12
	Above 56 years	38	12.63	1.08	0.17
Trust	56 years and below	179	11.24	1.92	0.14
	Above 56 years	38	11.50	1.74	0.28
Satisfaction	56 years and below	179	12.56	1.66	0.12
	Above 56 years	38	12.13	1.09	0.18
Continuous Intention	56 years and below	179	12.56	1.99	0.15
	Above 56 years	38	12.18	1.61	0.26

Source: Primary Data Analysis

Table 3 depicts the mean and standard deviation statistics of the six variables between two age categories. Comparing these mean values, it can be noted that the age group '56 years and below' reported higher mean values for variables confirmation, satisfaction, perceived usefulness and continual intention, whereas the mean values of the variables perceived security, and trust were reported high for the age group 'above 56 years'.

Table 4 demonstrates the results of the independent sample t-test, and it reports Levene's test as significant, indicating that the two groups did not show homogeneity of variance on the dependent variables. Hence, the t-test for the equality of means was checked under the condition of equal variances not assumed, and it was found that there is a significant ($p < .05$) difference in the levels of perceived usefulness and perceived satisfaction reported by the two different age groups. Looking at the mean score, women aged 56 and below had higher levels

of perceived usefulness (13.53) than women aged 56 and above (12.63). In addition, women aged 56 and under had a significantly higher mean score of perceived satisfaction (12.56) than women aged 56 and up (12.13) (see Table 3).

Table 4. Independent Sample Test Results

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std Error Difference	95% Confidence Interval of the Difference	
								Lower		Upper
Confirmation	Equal variances assumed	7.35	0.01	0.73	215	0.47	0.23	0.31	-0.38	0.83
	Equal variances not assumed			0.85	64.64	0.4	0.23	0.26	-0.31	0.76
Perceived Security	Equal variances assumed	5.80	0.02	-0.98	215	0.33	-0.29	0.31	-0.90	0.30
	Equal variances not assumed			-1.27	78.55	0.21	-0.30	0.23	-0.76	0.17
Perceived Usefulness	Equal variances assumed	23.24	0.00	3.2	215	0.00	0.90	0.28	0.35	1.45
	Equal variances not assumed			4.20	79.61	0.00	0.90	0.21	0.47	1.33
Trust	Equal variances assumed	2.26	0.14	-0.75	215	0.45	-0.25	0.34	-0.92	0.41
	Equal variances not assumed			-0.8	57.87	0.42	-0.25	0.32	-0.89	0.38
Satisfaction	Equal variances assumed	17.36	0.00	1.52	215	0.13	0.43	0.28	-0.13	0.98
	Equal variances not assumed			1.97	77.86	0.05	0.43	0.22	-0.00	0.86
Continuous Intention	Equal variances assumed	9.87	0.00	1.09	215	0.28	0.37	0.34	-0.30	1.05

Independent Samples Test

Equal variances not assumed	1.25	63.45	0.22	0.37	0.30	-0.23	0.97
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Source: Primary Data Analysis

Discussion and Practical Implications

The present study investigated the determinants of users' continuous intentions in the context of e-wallets. Overall, the study augments the body of knowledge, specifically in understanding the behavioural intentions of e-wallet adoption among women in India. Most importantly, this study shed light on aspects of the digital divide between two cross-sections of women in Indian society.

The results of the path analysis demonstrate all the proposed hypotheses were accepted, except for the impact of perceived security on user satisfaction. However, in congruence with the results of Daragmeh *et al.* (2022), perceived security was found to have a significant impact on the continuous intention of using e-wallets. One possible explanation for the lack of significance of perceived security on user satisfaction is that security is no longer regarded as an attribute that can lead to satisfaction. In today's tech-savvy world, where e-commerce is so widespread, perhaps people consider security to be a basic attribute of a service, i.e., an "order qualifier attribute" and not an "order winner attribute". To put it another way, while it is critical that customers perceive security when using e-wallets, this attribute alone does not contribute to user satisfaction but is one of the factors that ensures continued adoption.

The results also demonstrate that perceived usefulness and confirmation have a positive influence on user satisfaction with e-wallets, which is consistent with the findings of Gilani *et al.* (2016) and Froughi *et al.* (2017). This means that the service providers have to ensure that they deliver on their promises. Confirmation is a very critical aspect of building user satisfaction, and any perceived gap between the actual and promised experience will result in loss of trust and eventually affect consumers' post-adoption behaviour. Service providers also have to differentiate themselves in terms of the usefulness of their e-wallet services. To guarantee continuous adoption, e-wallets should be more user-friendly, easy to understand, have a simpler interface, and efficiently communicate the features of the e-wallets; FAQs are one way of enhancing perceived usefulness (Froughi *et al.*, 2019). Analogous to the results of Manrai *et al.* (2022), trust is also a crucial factor in framing the behavioural intentions to use e-wallets among women consumers.

Finally, results demonstrated that perceived satisfaction has a huge impact on the continuous intention of e-wallet adoption among women, which is in congruence with several previous

studies ([Alfany et al., 2019](#)). The more content women are with their e-wallets, the higher the prospects of continuous adoption ([Esawe, 2022](#)).

This study also investigated the existence of the digital divide among two cross-sections of women in India concerning e-wallet adoption and continuous intention. The results of the independent sample t-test demonstrate that there was not any significant difference between the means of the two age groups. That is, contrary to our expectations, the values for confirmation, perceived security, trust, perceived satisfaction, and continuous intention were the same across both categories. To put it another way, the study found no difference in women's intentions to use an e-wallet on a consistent basis across age groups. A primary reason for this result could be because the majority of the above 56-year-old women were retired professionals, either from banks or colleges. This could be because their exposure to technology in their respective jobs has made them more adaptable to it. Secondly, as respondents were mostly from metros and tier-2 cities, studies have proven that women's participation in the workforce has enhanced technology adoption ([Manrai et al., 2022](#); [Bose et al., 2022](#)).

Limitations

Although this study accomplished its objectives, it has a few limitations that need to be addressed. Firstly, 82 percent of those who took the survey were below the age of 56, so a possibility of bias in the cross-sectional study exists. In the future, a more representative population of various age groups will need to be selected. As the mall intercept method was used for data collection, a representative sample could not be attained. Secondly, the researchers have explored only five variables, which they were convinced have an impact on the behavioural intentions of women. As the features of the e-wallets are upgraded, more relevant variables can be added to the study in the future. Also, this result cannot be generalised for the rural women's population, as this study was conducted among tier-2 cities and metros.

Conclusion

Users' continuous intention is very critical for the success of all digital payment platforms. The findings of this research validate that user satisfaction and the perceived security and usefulness of e-wallets directly impact their continued adoption intentions. Perceived confirmation, usefulness, and trust influence user satisfaction among women. Finally, the study also found that the digital divide among urban women consumers in India, across the retired and working classes, is not true. This study not only contributed to the knowledge of e-wallets in India but also provided insights to banks and e-wallet service providers concerning

the drivers of continuous intention for e-wallets and their perception among various cross-sections of women.

References

- Alfany, Z., Saufi, A., & Mulyono, L. E. H. (2019). The Impact of Social Influence, Self-Efficacy, Perceived Enjoyment, and Individual Mobility on Attitude toward use and Intention to use Mobile Payment of OVO. *Global Journal of Management and Business Research: E Marketing*, 19(7), 1–8. <https://journalofbusiness.org/index.php/GJMBR/article/view/2951>
- Amoroso, D. L., & Magnier-Watanabe, R. (2012). Building a Research Model for Mobile Wallet Consumer Adoption: The Case of Mobile Suica in Japan. *Journal of Theoretical and Applied Electronic Commerce Research*, 7(1), 94–110. <https://doi.org/10.4067/s0718-18762012000100008>
- Bauman, A., & Bachmann, R. (2017). Online Consumer Trust: Trends in Research. *Journal of Technology Management & Innovation*, 12(2), 68–79. <https://doi.org/10.4067/s0718-27242017000200008>
- Bentler, P. M., & Dudgeon, P. (1996). Covariance Structure Analysis: Statistical Practice, Theory, and Directions. *Annual Review of Psychology*, 47(1), 563–592. <https://doi.org/10.1146/annurev.psych.47.1.563>
- Bhattacharjee, A. (2001). Understanding Information Systems Continuance: An Expectation-Confirmation Model. *Management Information Systems Quarterly*, 25(3), 351. <https://doi.org/10.2307/3250921>
- Bhattacharjee, A. (2011). Information Technology Continuance Research: Current State and Future Directions. *Asia Pacific Journal of Information Systems*, 21(3), 1–18. <https://www.semanticscholar.org/paper/Information-Technology-Continuance-Research-%3A-State-Bhattacharjee-Barfar/8771ecde16059ed71fb2f5e20762bfff24120b87>
- Bose, G., Jain, T., & Walker, S. R. (2022). Women’s labor force participation and household technology adoption. *European Economic Review*, 147(C), 104181. <https://doi.org/10.1016/j.euroecorev.2022.104181>
- Cao, T. V., Dang, P., & Nguyen, H. D. (2016). Predicting Consumer Intention to Use Mobile Payment Services: Empirical Evidence from Vietnam. *International Journal of Marketing Studies*, 8(1), 117. <https://doi.org/10.5539/ijms.v8n1p117>
- Chawla, D., & Joshi, H. (2019). Consumer attitude and intention to adopt mobile wallet in India – An empirical study. *International Journal of Bank Marketing*, 37(7), 1590–1618. <https://doi.org/10.1108/ijbm-09-2018-0256>
- Daragmeh, A., Sági, J., & Zéman, Z. (2021). Continuous Intention to Use E-Wallet in the Context of the COVID-19 Pandemic: Integrating the Health Belief Model (HBM) and Technology Continuous Theory (TCT). *Journal of Open Innovation: Technology, Market and Complexity*, 7(2), 132. <https://doi.org/10.3390/joitmc7020132>

- Daragmeh, A., Saleem, A., Bárcezi, J., & Sági, J. (2022). Drivers of post-adoption of e-wallet among academics in Palestine: An extension of the expectation confirmation model. *Frontiers in Psychology*, 13, 984931. <https://doi.org/10.3389/fpsyg.2022.984931>
- Dastan, I., & Gürler, C. (2016). Factors Affecting the Adoption of Mobile Payment Systems: An Empirical Analysis. *Emerging Markets Journal*, 6(1), 17–24. <https://doi.org/10.5195/emaj.2016.95>
- Dhingra, M., Sachdeva, K., & Machan, C. (2020). Factors Impacting the Usage of E-Wallets in National Capital Region. *Turkish Journal of Mathematics Education*, 11(2), 675–686. <https://turcomat.org/index.php/turkbilmate/article/view/9761>
- Duarte, P., Silva, S. C. E., & Ferreira, M. A. (2018). How convenient is it? Delivering online shopping convenience to enhance customer satisfaction and encourage e-WOM. *Journal of Retailing and Consumer Services*, 44, 161–169. <https://doi.org/10.1016/j.jretconser.2018.06.007>
- Esawe, A. T. (2022). Understanding mobile e-wallet consumers' intentions and user behavior. *Spanish Journal of Marketing - ESIC*, 26(3), 363–384. <https://doi.org/10.1108/sjme-05-2022-0105>
- Foroughi, B., Iranmanesh, M., & Hyun, S. S. (2019). Understanding the determinants of mobile banking continuance usage intention. *Journal of Enterprise Information Management*, 32(6), 1015–1033. <https://doi.org/10.1108/jeim-10-2018-0237>
- Gao, L., Waechter, K. A., & Bai, X. (2015). Understanding consumers' continuance intention towards mobile purchase: A theoretical framework and empirical study – A case of China. *Computers in Human Behavior*, 53, 249–262. <https://doi.org/10.1016/j.chb.2015.07.014>
- Gilani, M. S., Iranmanesh, M., Nikbin, D., & Zailani, S. (2017). EMR continuance usage intention of healthcare professionals. *Informatics for Health & Social Care*, 42(2), 153–165. <https://doi.org/10.3109/17538157.2016.1160245>
- Hair Jr., J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010) *Multivariate Data Analysis: A Global Perspective*. 7th Edition, Pearson Education, Upper Saddle River.
- Hajazi, M. Z., Chan, H. S., Ya'kob, S. A., Siali, F., & Latip, H. B. A. (2021). Usage Intention of Qr Mobile Payment System Among Millennials in Malaysia. *International Journal of Academic Research in Business & Social Sciences*, 11(1). <https://doi.org/10.6007/ijarbss/v11-i1/8494>
- Hsu, C., Chen, M., Chang, K., & Chao, C. M. (2010). Applying loss aversion to investigate service quality in logistics. *International Journal of Operations & Production Management*, 30(5), 508–525. <https://doi.org/10.1108/01443571011039605>
- HT News Desk. (2023, January 20). *Davos 2023*. <https://www.hindustantimes.com/>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Iranmanesh, M., Zailani, S., & Nikbin, D. (2017). RFID Continuance Usage Intention in Health Care Industry. *Quality Management in Health Care*, 26(2), 116–123. <https://doi.org/10.1097/qmh.000000000000134>

- Khalifa, M., & Shen, K. N. (2008). Explaining the adoption of transactional B2C mobile commerce. *Journal of Enterprise Information Management*, 21(2), 110–124. <https://doi.org/10.1108/17410390810851372>
- Kumar, A., Adlakaha, A., & Mukherjee, K. (2018). The effect of perceived security and grievance redressal on continuance intention to use M-wallets in a developing country. *International Journal of Bank Marketing*, 36(7), 1170–1189. <https://doi.org/10.1108/ijbm-04-2017-0077>
- Kustono, A. S., Nanggala, A., & Mas'ud, I. (2020). Determinants of the Use of E-Wallet for Transaction Payment among College Students. *Journal of Economics, Business, and Accountancy: Ventura*, 23(1), 85–95. <https://doi.org/10.14414/jebav.v23i1.2245>
- Leong, C., Tan, K., Puah, C., & Chong, S. H. (2020). Predicting mobile network operators users m-payment intention. *European Business Review*, 33(1). <https://doi.org/10.1108/eb-10-2019-0263>
- Malhotra, N. K., & Dash, S. (2011). *Marketing Research an Applied Orientation*. London: Pearson Publishing
- Manrai, R., Yadav, P. D., & Goel, U. (2022). Factors affecting adoption of digital payments by urban women: understanding the moderating role of perceived financial risk. *Technology Analysis & Strategic Management*, 1–13. <https://doi.org/10.1080/09537325.2022.2139237>
- Marsh, H. W., Hau, K.-T., & Grayson, D. (2005). Goodness of Fit in Structural Equation Models. In A. Maydeu-Olivares & J. J. McArdle (Eds.), *Contemporary psychometrics: A festschrift for Roderick P. McDonald* (pp. 275–340). Lawrence Erlbaum Associates Publishers.
- Mun, Y. P., Khalid, H., & Nadarajah, D. (2017). Millennials' Perception on Mobile Payment Services in Malaysia. *Procedia Computer Science*, 124, 397–404. <https://doi.org/10.1016/j.procs.2017.12.170>
- Oliver, R. P. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, 17(4), 460–469. <https://doi.org/10.1177/002224378001700405>
- Rahi, S., Khan, M. M., & Alghizzawi, M. (2020). Extension of technology continuance theory (TCT) with task technology fit (TTF) in the context of Internet banking user continuance intention. *International Journal of Quality & Reliability Management*, 38(4), 986–1004. <https://doi.org/10.1108/ijqrm-03-2020-0074>
- Rotter, J. B. (1980). Interpersonal trust, trustworthiness, and gullibility. *American Psychologist*, 35(1), 1–7. <https://doi.org/10.1037/0003-066x.35.1.1>
- Safari, A. (2012). Customers' International Online Trust — Insights from Focus Group Interviews. *Journal of Theoretical and Applied Electronic Commerce Research*, 7(2), 59–72. <https://doi.org/10.4067/s0718-18762012000200007>
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the Fit of Structural Equation Models: Tests of Significance and Descriptive Goodness-of-Fit Measures. *Methods of Psychological Research*, 8(2), 23–74. <https://psycnet.apa.org/record/2003-08119-003>

- Seam, A., Reddy, R. S., Agrawal, S., Chaitanya, K., Bist, H., Safdar, S., Patil, P. R., & Rao, P. (2017). Factors Affecting Consumer's Choice To Use Mobile Wallets To Access M-Commerce Industry In India. *International Journal on Customer Relations*, 5(1), 14–21. https://www.researchgate.net/publication/315619951_FACTORS_AFFECTING_CONSUMER%27S_CHOICE_TO_USE_MOBILE_WALLET_TO_ACCESS_M-COMMERCE_INDUSTRY_IN_INDIA
- Sevim, N., & Hall, E. E. (2014). Consumer Trust Impact on Online Shopping Intent. *Internet Uygulamaları Ve Yönetimi*, 5(2), 19–28. <https://doi.org/10.5505/iuyd.2014.41636>
- Shang, D., & Wu, W. (2017). Understanding mobile shopping consumers' continuance intention. *Industrial Management and Data Systems*, 117(1), 213–227. <https://doi.org/10.1108/imds-02-2016-0052>
- Sheth, J. N. (2021). New areas of research in marketing strategy, consumer behavior, and marketing analytics: the future is bright. *The Journal of Marketing Theory and Practice*, 29(1), 3–12. <https://doi.org/10.1080/10696679.2020.1860679>
- Susanto, A., Chang, Y., & Ha, Y. (2016). Determinants of continuance intention to use the smartphone banking services. *Industrial Management and Data Systems*, 116(3), 508–525. <https://doi.org/10.1108/imds-05-2015-0195>
- Thakur, R., & Srivastava, M. (2014). Adoption readiness, personal innovativeness, perceived risk and usage intention across customer groups for mobile payment services in India. *Internet Research*, 24(3), 369–392. <https://doi.org/10.1108/intr-12-2012-0244>
- The Economic Times. (2023, March 9). India's digital payments market will more than triple to \$10 trillion by 2026: Report. *The Economic Times*. <https://economictimes.indiatimes.com/news/economy/finance/indias-digital-payments-market-will-more-than-triple-to-10-trillion-by-2026-report/articleshow/98522718.cms?from=mdr>
- Tzeng, S., Ertz, M., Jo, M., & Sarigöllü, E. (2021). Factors affecting customer satisfaction on online shopping holiday. *Marketing Intelligence & Planning*, 39(4), 516–532. <https://doi.org/10.1108/mip-08-2020-0346>
- World Bank Group. (2021). The Global Findex Database 2021. In *The World Bank*. <https://www.worldbank.org/en/publication/globalindex>
- Xavier, P. S., & Zakkariya, K. A. (2021). Factors Predicting Consumers' Continuance Intention to Use Mobile Wallets: Evidence from Kerala, India. *Colombo Business Journal*, 12(1), 114–144. <https://doi.org/10.4038/cbj.v12i1.73>
- “YouGov: Two-thirds of urban Indian women claim to use digital payment modes regularly”. (2021, March 3). YouGov. Retrieved December 10, 2022, from <https://business.yougov.com/content/34465-two-thirds-urban-indian-women-claim-use-digital-pa>