

THE EFFECT OF GENDER, AGE AND FAMILY INCOME ON THE USAGE OF E-WALLETS

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ABSTRACT

There has been a significant rise in cashless transactions in recent years because of financial technology growth. Consumers are moving from cash-based to cashless as a consequence of expanding fintech products such as e-wallet. As they were born in smartphone technology, young adult consumers in the 21st century are tech-savvy. An E-wallet is a type of card that operates electronically and is also used via a computer or a smartphone for purchases made online. Its design is similar to a credit or debit card. Cashless payments in almost every sector are now becoming a common trend. The purpose of this research is to explore the influence of gender, age, and family income on the use of e-wallets. This study further allows digital marketplace service providers to grasp better the usefulness of using e-wallets for transaction purposes.

Keywords – E-wallet, Cashless, Digitization, Financial Technology, Tech-Savvy.

INTRODUCTION

Information and Communication Technology (ICT) has been transforming the global banking and payments industry by providing convenient payment channels. The impact has been more for developing nations because of a large untapped customer base comprising unbanked customers. In India, this opportunity has attracted many new players, including start-ups, to come out with e-wallet services. This has resulted in players from the telecom, banking, and online retail industry coming out with their electronic wallet services. The most popular e-wallet is PayTM, MobiKwik, PayUmoney, and Amazon Pay, other than the banks that offer their e-wallet services. Electronic or digital wallets are the digital equivalent of a physical wallet. Money in an e-wallet can be loaded using

debit/credit cards or net banking, which can then be used to make payments to people/merchants (Bagla and Sancheti, 2018). These transactions could be via multi-channels such as consumer to consumer, consumer to business, consumer to the machine, and consumer to online (Shin, 2009). The electronic wallet is emerging as a preferred mode of payment among Indian users. As per BloombergQuint (2019), in India, the share of debit and credit card payments fell to less than half of digital retail prices in the 12 months till January 2019; however, the percentage of mobile (mobile banking and wallets) payments rose to 27.9% compared to only 3.5% four years ago. Since 2013, the share of mobile wallet transactions as a percentage of total cashless transaction volumes in India has grown at a phenomenal rate. According to KPMG (2019), other factors that have led to the extensive adoption of wallets include the ease of payment, interoperability across platforms, ubiquity, and convenience. As per estimates from Kenneth Research (2019), during the 2019–2023 period, the Indian mobile wallet market was expected to expand at a compound annual growth rate of approximately 52% by volume from INR 6.4bn in 2018.

The present study examined the effect of gender, age, and family income on the usage of e-wallets. While prior studies have examined the factors that influence technology adoption, the emphasis has been given to how individual demographic differences affect adoption. It is reasonable to assume that variations in demographic variables such as age, gender, income, occupation, and education are essential to developing customer attitude and behavioral intention (BI) towards adopting the technology. This study investigates three critical variables, gender, age, and family income, that influences e-wallet services in India. Consequently, this research aims to make many contributions. The results of this study could assist providers of e-wallet services to recognize and prioritize factors that are important for shaping the attitude of users and the intention to adopt e-wallets. Secondly, the results could allow decision-makers in management to understand how gender, age, and income impact the use of different attitudes and intentions of e-wallet services that could be used for corporate benefit.

LITERATURE REVIEW

Chawla & Joshi (2020) found that user attitude and purpose are significantly influenced by the ease of use, usability, confidence, protection, facilitating conditions, and LC. The findings show that the relationship between privileged

backgrounds and attitude and purpose is moderated by gender and age, and the effect is shown more for males and young users.

Prabhakaran & Vasantha (2020) concluded that promotional advantage mediates the relationship between the social influence factor and the intention to use actions. Based on this report, mobile wallet providers have been advised to focus on the performance of mobile wallet applications. Companies with mobile wallets should concentrate more on the happiness and security of their customers, which are indirectly central to maintaining their users for the future.

Revathy & Balaji (2020) indicated that the positive and essential predictors of e-wallet use are perceived protection, social influence, performance expectation. However, effort expectation does not have a significant impact on e-wallet use. Besides, the use of e-wallets should be promoted to avoid unnecessary bank visits, introduce social distancing, avoid physical interaction during cash exchange during the COVID-19 pandemic in India, and also to create a positive attitude among the country's people towards the adoption of a cashless economy.

Annam (2020) found that the digital payment system has the least value for women and rural people. Therefore, the government should raise awareness of the significance of the digital payment system, especially among women and rural consumers. Lack of security and lack of trust are critical issues clients face when using the digital payment system. Therefore, the digital payment industry and the government are giving customers confidence in payment security and trust.

Angamuthu (2020) revealed that M-Wallet's actual market performance had been reported to indicate positive growth in selected aspects during the 2013-14 to 2018-19 study period. The experience of clients shows that over half of them have embraced M-wallet services. The chi-square test shows a significant and robust link to adopting M-Wallet services through multiple demographic variables.

Karim et al. (2020) said that the purpose of e-wallet use among Malaysian young adults was explored by applying the model of technology acceptance. The research also looked at the behavioral intention and its impact on actual usage. The function of perceived utility perceived ease of use, and privacy is also crucial to analyze the behavioral purpose of using an e-wallet.

Jain et al. (2020) showed that respondents were found to embrace E-Wallet services as social status and were strongly influenced by the references provided to the services by their colleagues and peers. Banks' awareness programs have also shown considerable value, especially for potential users, as they can clear up their doubts and reduce their fear while using e-wallet services. The awareness programs must be conducted on a routine basis so that the users are updated with the latest feature of E-Wallet services.

Chawla & Joshi (2019) shown that factors such as perceived ease of use (PEOU), perceived usefulness (PU), confidence, protection, conditions, and lifestyle compatibility have a significant impact on the attitude of the user and the intention to use mobile wallets. Fifteen of the proposed 17 assumptions were approved. Usefulness and confidence were significantly affected by ease of use, while trust, attitude, and purpose were affected considerably by PU. Security and faith have been found to play an essential role in establishing confidence.

OBJECTIVE OF THE STUDY

The present study has the following objectives –

- To study the effect of gender that influences users intention to use e-wallet services
- To study the effect of age that influences users' intention to use e-wallet services.
- To study the effect of family income that influences users' intention to use e-wallet services.

RESEARCH METHODOLOGY

THE STUDY

The study is descriptive and is based on the survey method. The survey was conducted among the e-commerce users of the Indore Division. The aim was to analyze the effect of select demographic variables, i.e., Gender, Age, and income, on consumers' intention to use e-wallet services. Gender, age, and income are treated as independent variables, and the dependent variables are the factors that influence users' choice to use e-wallet services.

THE SAMPLE

The population under study includes the users of India who use the various types of e-wallet services for multiple purposes. In the absence of a sampling frame, non-probability judgemental sampling has been used in the present study to select the sample from the population. According to Bryman and Cramer

(2001), differences between random and non-probability convenience/judgemental models in terms of their representativeness are not as significant as have often been implied. Invitations were sent to respondents through emails for filling up the questionnaire, and they were also requested to forward the questionnaire to other users. Apart from email, respondents were also personally approached for filling up the questionnaire. Social media platforms were also used for filling up the questionnaire. The respondents were also approached personally for filling up the questionnaire. The sample of the study was drawn from the eight districts of the Indore Division. Finally, a total of 450 respondents completed the survey successfully out of 500 targeted respondents. The sample of the study comprises 450 users, which were selected from the population of eight districts of Indore division, namely Indore District, Barwani District, Dhar District, Khargone District, Khandwa District, Jhabua District, Alirajpur District, and Burhanpur District. Finally, 450 respondents completed the survey successfully out of the 500 targeted respondents.

DATA COLLECTION

The primary data was collected through a questionnaire which comprised two parts. The first part concentrates on the general information of respondents. The second part identifies their intention to use e-wallet services. The second part included 34 useful items adopted from the study of **Jain et al. (2020)**. These items were classified into four factors, namely, perceived usefulness, privacy, and security, perceived ease of use, and direct personal benefits. They were found to be the essential elements in their study, which affects the consumers' intention to use e-wallet services in Indore Division. The present research administered these 34 items on four identified factors. These items were measured on a five-point Likert scale ranging from 'Strongly Agree (5)' to 'Strongly Disagree (1)'.

The reliability of the scale measuring consumers' intention to use the e-payment system was determined by the Cronbach alpha method. The reliability coefficient alpha (α) was found to be 0.960 showing the high reliability of the 34 item's scale. The collected data were further analyzed using the T-test and One-way ANOVA test. SPSS 21.0 was used to analyze the data.

FORMULATION OF HYPOTHESES

- Based on four factors adopted from the study of **Jain et al. (2020)** for consumers' intention to use e-wallet services, the following hypotheses were framed:

- H₀₁: There is no significant effect of gender on the 'perceived usefulness' factor on the usage of e-wallets.
- H₀₂: There is no significant effect of gender on the 'privacy and security' factor on the usage of e-wallets.
- H₀₃: There is no significant effect of gender on the 'perceived ease of use' factor on the usage of e-wallets.
- H₀₄: There is no significant effect of gender on the 'direct personal benefits' factor on the usage of e-wallets.
- H₀₅: There is no significant effect of age on the 'perceived usefulness' factor on the usage of e-wallets.
- H₀₆: There is no significant effect of age on the 'privacy and security' factor on the usage of e-wallets.
- H₀₇: There is no significant effect of age on the 'perceived ease of use' factor on the usage of e-wallets.
- H₀₈: There is no significant effect of age on the 'direct personal benefits' factor on the usage of e-wallets.
- H₀₉: There is no significant effect of income on the 'perceived usefulness' factor on the usage of e-wallets.
- H₁₀: There is no significant effect of income on the 'privacy and security' factor on the usage of e-wallets.
- H₁₁: There is no significant effect of income on the 'perceived ease of use' factor on the usage of e-wallets.
- H₁₂: There is no significant effect of income on the 'direct personal benefits' factor on the usage of e-wallets.

RESULTS AND DISCUSSIONS

The Effect of Gender, Age and Family Income on the usage of E-Wallets

To evaluate the effect of demographic variables, namely gender, age, and family income, on the usage of e-wallets, the present study has hypothesized the four constituent factors which influence the individual's decision to use e-wallets: perceived usefulness, privacy, and security, perceived ease of use and Direct Personal Benefits. Many of these factors can be prior regarded as pertinent to the usage of e-wallet services. The Effect of Gender, Age, and Income on each of these factors are discussed below.

EFFECT OF GENDER

H₀₁: There is no significant effect of gender on the 'perceived usefulness' factor on the usage of e-wallets.

TABLE 1: Details of Mean, Standard Deviation, Sig Value of Users of Perceived Usefulness Factor Concerning gender

Factor	Mean	Standard Deviation	T	Sig Value	Reject or Not Reject
1. Perceived Usefulness	Male - 42.4236	6.65896	.448	.654	Not Reject
	Female – 42.1538	6.07632			

Hypotheses H₀₁ was not rejected at a 5% level of significance with Sig value 0.654 Mean for the males and females are 42.4236 and 42.1538 respectively, and Standard deviation for males and females are 6.65896 and 6.07632 respectively. A significant difference was not observed for the perceived usefulness factor that influences users' intention to use e-wallet services because males use the e-wallet services to a greater extent than females. Males use technologies to a greater extent as compared to females.

H₀₂: There is no significant effect of gender on the 'privacy and security' factor on the usage of e-wallets.

TABLE 2: Details of Mean, Standard Deviation, Sig Value of Users of Privacy and Security Factor Concerning gender

Factor	Mean	Standard Deviation	T	Sig Value	Reject or Not Reject
Privacy and Security	Male - 41.4410	6.34064	1.332	.183	Not Reject
	Female -40.6742	5.84984			

Hypotheses H₀₂ was not rejected at a 5% level of significance with Sig value 0.183 Mean for the males and females are 41.4410 and 40.6742 respectively, and Standard deviation for males and females are 6.34064 and 5.84984 respectively. The significant difference was not observed for the privacy and security factor that influences user's intention to use e-wallet services because it was found that males use the e-payment system more as compared to females and males are

already very concerned with security factor while using electronic devices of the payment system as compared to females.

H₀₃: There is no significant effect of gender on the 'perceived ease of use' factor on the usage of e-wallets.

TABLE 3: Details of Mean, Standard Deviation, Sig Value of Users of Perceived Ease of Use Factor Concerning gender

Factor	Mean	Standard Deviation	T	Sig Value	Reject or Not Reject
Perceived Ease of Use	Male - 35.0917	3.89392	3.408	.001	Reject
	Female- 33.7692	4.33340			

Hypotheses H₀₃ was rejected at a 5% level of significance with Sig value 0.001. Mean for the males and females are 35.0917 and 33.7692 respectively, and Standard deviation for males and females are 3.89392 and 4.33340 respectively. A significant difference was observed for the perceived ease of use factor that influences users' intention to use e-wallet services. It was found that males use e-wallet services as per their convenience, and females use it as per their convenience.

H₀₄: There is no significant effect of gender on the 'direct personal benefits' factor on the usage of e-wallets.

TABLE 4: Details of Mean, Standard Deviation, Sig Value of Users of Direct Personal Benefits Factor Concerning gender

Factor	Mean	Standard Deviation	T	Sig	Reject or Not Reject
Direct Personal Benefits	Male - 23.8690	3.96590	.152	.880	Not Reject
	Female- 23.8145	3.65401			

Hypotheses H₀₄ was not rejected at a 5% level of significance with Sig value 0.880. Mean for the males and females are 23.8690 and 23.8145 respectively, and Standard deviation for males and females are 3.96590 and 3.65401 respectively. The significant difference was not observed for the direct personal benefits factor that influences user's intention to use e-wallet because it was found that all types of e-wallet provide the same kind of benefits to all the peoples, whether it is male or female.

EFFECT OF AGE

H₀₅: There is no significant effect of age on the 'perceived usefulness' factor on the usage of e-wallets.

TABLE 5: Details of Mean, Standard Deviation, Sig Value of Users of Perceived Usefulness Factor Concerningage

Factor	Mean	Standard Deviation	F	Sig	Reject or Not Reject
Perceived Usefulness	Below 20 years – 41.3143	6.26651	3.710	.012	Reject
	20 – 30 years - 42.9196	6.42073			
	30 – 40 years - 43.9286	6.12783			
	Above 40 years 44.9231	5.86603			

From table 5a, the p-value (sig. value) is found to be 0.012; therefore, hypothesis H₀₅ is rejected at a 5% level of significance. It means that there is a significant effect of age on the perceived usefulness factor on the usage of e-wallets. Hence, there is a substantial difference among the users concerning age found on perceived usefulness factor that influences consumer intention to use e-wallets. From the mean value of all the age groups, this significant difference arises due to the difference in users' opinion of having an age group of above 40 years. The users of this age group have to adopt different strategies than other age groups about perceived usefulness. Each user uses e-wallet services according to their understanding of the technology.

H₀₆: There is no significant effect of age on privacy and security factor on the usage of e-wallets.

TABLE 6: Details of Mean, Standard Deviation, Sig Value of Users of Privacy and Security Factor Concerningage

Factor	Mean	Standard Deviation	F	Sig	Reject or Not Reject
Privacy and Security	Below 20 years 40.8333	6.29922	2.119	.097	Not Reject
	20 – 30 years 41.2161	5.73740			
	30 – 40 years 39.9643	6.80132			
	Above 40 years 44.8462	6.22958			

From table 6, the p-value (sig. value) is found to be 0.097, which is more than .05; therefore, hypothesis H_{06} is rejected at a 5 % level of significance. It means that there is no significant effect of age on privacy and security factor on the usage of e-wallets. Hence, no significant difference was found among the users concerning age found on privacy and security factor that influences consumer intention to use an e-wallet.

H_{07} : There is no significant effect of age on the 'perceived ease of use' factor on the usage of e-wallets.

TABLE 7: Details of Mean, Standard Deviation, Sig Value of Users of Perceived Ease of Use Factor Concerning age

Factor	Mean	Standard Deviation	F	Sig Value	Reject or Not Reject
Perceived Ease of Use	Below 20 years	33.5714	6.630	.000	Reject
	20 – 30 years	35.1055			
	30 – 40 years	35.1786			
	Above 40 years	36.7692			

From table 7, the p-value (sig. value) is found to be 0.000, which is less than .01; therefore, hypothesis H_{07} is rejected at a 1% level of significance. It means that there is a significant effect of age on perceived ease of use factor on influencing consumer's intention to use e-wallets. Hence, there is a substantial difference among the users concerning age found on perceived ease of use factor that affects consumer intention to use e-wallets. This significant difference arises from the difference in opinion of users of the age group of below 20 years. The users of this age group have to implement different strategies compared to other age groups with perceived ease of use factor.

H_{08} : There is no significant effect of age on the 'direct personal benefits' factor on the usage of e-wallets.

TABLE 8: Details of Mean, Standard Deviation, Sig Value of Users of Direct**Personal Benefits Factor Concerningage**

Factor	Mean	Standard Deviation	F	Sig Value	Reject or Not Reject	
Direct Personal Benefits	Below 20 years	23.6190	3.68206	.890	.446	Not Reject
	20 – 30 years	24.1658	3.64423			
	30 – 40 years	23.4286	5.48688			
	Above 40 years	23.3846	4.17410			

From Table 8, it is clear that the p-value (sig value) is 0.446, which is greater than 0.05; therefore, hypothesis H_{08} is accepted. There is no significant effect of age on direct personal benefits factor that influences users' intention to use e-wallets. In this study, it is clear that users of different age groups do not have any significant effect on direct personal benefits factor concerning age that influences user's intention to use electronic wallet services. It means that with emerging technologies and functionalities, users of different age groups started to believe and include the usage of e-wallets positively into their daily routine. They have begun relying on e-wallets and its information and consistently uses the services of e-wallets.

EFFECT OFFAMILY INCOME

H_{09} : There is no significant effect of income on the 'perceived usefulness' factor on the usage of E-wallets.

TABLE 9: Details of Mean, Standard Deviation, Sig Value of Users of**Perceived Usefulness Factor ConcerningFamily Income**

Factor	Mean	Standard Deviation	F	Sig Value	Reject or Not Reject	
Perceived Usefulness	Below 50,000	42.0870	6.08932	.284	.753	Not Reject
	50,000-1,00,000	42.3311	6.44642			
	Above 1,00,000	42.6848	6.91062			

From table 9, the p-value (sig. value) is found to be 0.753, which is more than .05; therefore, hypothesis H_{09} is not rejected at a 5% level of significance. It means that there is no significant effect of income on the perceived usefulness factor on the usage of e-wallets. Hence, there is no significant difference among

the users concerning income found on perceived usefulness factor that influences consumer intention to use e-wallets.

H₁₀: There is no significant effect of income on privacy and security factor on the usage of e-wallets.

TABLE 10: Details of Mean, Standard Deviation, Sig Value of Users of Privacy and Security Factor Concerning Family Income

Factor	Mean		Standard Deviation	F	Sig Value	Reject or Not Reject
Privacy and Security	Below 50,000	40.9903	6.07077	.850	.287	Not Reject
	50,000-1,00,000	40.7351	6.12830			
	Above 1,00,000	41.7717	6.17706			

From table 10, the p-value (sig. value) is found to be 0.287, which is more than .05; therefore, hypothesis H₁₀ is not rejected at a 5% level of significance. It means that there is not a significant effect of income on privacy and security factor on influencing consumer's intention to use e-wallets. Hence, there is a substantial difference among the users concerning income found on privacy and security factor that influences consumer intention to use e-wallets.

H₁₁: There is no significant effect of income on the 'perceived ease of use' factor on the usage of e-wallets.

TABLE 11: Details of Mean, Standard Deviation, Sig Value of Users of Perceived Ease of Use Factor Concerning Family Income

Factor	Mean		Standard Deviation	F	Sig Value	Reject or Not Reject
Perceived Ease of Use	Below 50,000	34.2802	4.04570	1.165	.313	Not Reject
	50,000-1,00,000	34.3046	4.25831			
	Above 1,00,000	35.0326	4.26190			

From table 11, the p-value (sig. value) is found to be 0.313, which is more than .05; therefore, hypothesis H₁₁ is accepted at a 5% level of significance. It means that there is not a significant effect of income on perceived ease of use factor on influencing consumer's intention to use the e-wallet system. Hence, there is no significant difference among the users concerning income found on perceived

ease of use factor on the usage of e-wallets as there is not so much variation found in all the income groups.

H₁₂: There is no significant effect of income on direct personal benefits factor on the usage of e-wallets.

TABLE 12: Details of Mean, Standard Deviation, Sig Value of Users of Direct Personal Benefits Factor Concerning Family Income

Factor	Mean	Standard Deviation	F	Sig Value	Reject or Not Reject
Direct Personal Benefits	Below 50,000	23.8502	.021	.979	Not Reject
	50,000-1,00,000	23.8742			
	Above 1,00,000	23.7717			

From Table 12, it is clear that the p-value (sig value) is 0.624, which is greater than 0.05; therefore, hypothesis H₁₂ is accepted. There is no significant effect of income on direct personal benefits factor that influences a user's intention to use e-wallets. In this study, it is clear that no significant difference was observed on users of all income groups concerning direct personal benefits factor. It means they use an e-wallet system with much reliability. They trust the capability of the particular e-wallet to perform the promised service dependably, safely, accurately, and consistently.

CONCLUSION

Electronic wallet services are considered one of the cost-effective systems for both the banks and customers, so it is regarded as one of the most crucial payment systems. Hence to study the effect of gender, age, and income on the factors adopted from the study of Jain et al.(2020), which influences consumers' intention to use the e-wallet system helps the users, policymakers to use the electronic wallet services. This study added some new findings to the body of research in various ways.

Twelve hypotheses were tested for analyzing the effect of gender, age, and family income on four factors, namely perceived usefulness, privacy, and security, perceived ease of use, and direct personal benefits that influence consumer intention to use electronic wallet services. Concerning gender, the four hypotheses were analyzed on four factors. They did not find any statistically significant relationship on the three factors, namely perceived usefulness,

privacy, and security, and direct personal benefits. Still, there is a statistically significant relationship found on the perceived ease of use factor on the usage of e-wallets.

Concerning age and family income, eight hypotheses were also analyzed on four factors. In the present study, a statistically significant difference was found on perceived usefulness perceived ease of use with respect to age. However, privacy and security and direct personal benefits were the factors in which no significant difference was found concerning age. Concerning family income, there was no statistically significant difference found with respect to all four aspects. Thus, the study concludes that various techniques must be implemented to enhance the smooth and secure functioning of electronic wallet services. Banks and other financial institutions must take necessary actions for conducting multiple awareness programs, which would increase the confidence level of the users as they will be able to clear their queries which arise while using the e-wallet services. Once the users perceive that they can use various electronic wallet services and possess the required knowledge and resources to adopt the service, they would continue to use the services without any resistance.

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