

Users' risk and problems in digital wallets in India

Bhawna Mukaria *

Kamal Institute of Higher Education & Advance Technology

Guru Gobind Singh Indraprastha University

Delhi

India

Manisha Gupta †

Mangalmay Institute of Management & Technology

Dr. A. P. J. Abdul Kalam Technical University

Greater Noida

Uttar Pradesh

India

Abstract

Digitalization has crossed the boundaries and no nation is left over. India is one of them. The whole nation is in impact of technology in all the ways. The pattern of payments, education, work etc. has changed a lot. With the technology, people feel in an upgraded standard, but on the other hand some problems are also there. The present study is on understanding the risks and problems associated with digital wallets especially in India. Particularly during the COVID era, people have faced multiple issues. So it was learnt that physical touch must be avoided in all ways whether it is of living in different states of India. All age groups have been considered for the study and 400 respondents have been selected. Primary data has been collected and analyzed on SPSS.

Subject Classification: 68U01, 68V30.

Keywords: Digital wallets, COVID.

1. Introduction

Technology is changing with the passage of time. Presently people are becoming more smart in everything including method of making payments. A digital wallet is a method of making payments having multiple options like payments via mobile phones, online wallet etc. The

* E-mail: bhawna.mukaria3@gmail.com (Corresponding Author)

† E-mail: manisha23040@gmail.com

concept of digital wallet had entered in our life in 2003. This system has totally changed the life of people. Now after entering the digital wallets in market, people are less likely to prefer cash. Instead they like to make payments using online systems or by their apps like PAYTM, BHIMUPI, ICICI money, SBI buddy, Google pay, PayPal. Digital wallets provide a feeling of being modern and have totally changed the lifestyle of people. The first digital wallet was developed in 1997. At that time due to lack of technology, people didn't have knowledge of using digital wallet. In 2019, there are about 2 billion users of digital wallets. Using digital wallet is more convenient and easy to use. They are less costly for us. Digital wallets are also known as E-wallet which is used for making payment using different apps of websites like Amazon, Flipkart, banks, Paytm, Google pay, Alipay, M-PESA etc.

Literature Review

Author, year. Country, Research Paper	Variables under study:	sampling	Data analysis tool techniques	Findings
1. (Sahi, Khalid, Abbas, Zedan, . Khatib, & Amosh, 2022)	Security and Privacy	591	Secondary data analysis	Mobile phones have the way for digital mobility systems that benefit a variety of organizations.
2. (Jyanthi & Kamakshi, 2021)	Cash rewards, security	90	Percentage analysis, and Factor Analysis	There are many positive factors like safe and secure payment, easy accessibility, risk free transaction confidentiality in financial data of the customer and non-contact payment.
3. (S., July 2020)	Behavioural Intention	52	Co-relation, regression, mean	People uses mobile wallets maximum for paying bills and least used for booking movie tickets and retail shopping.

Contd...

4. (Bhama & Priya, 2020)	Convenience, security	100	Percentage Analysis	People find mobile banking beneficial for making easy payments for shopping. People get psychological satisfaction after using mobile banking as there is no pain of losing cash from wallet.
5. (Katti & Angadi, 2020)	Customer preference, security, ease of use	125	Percentage Analysis	Digital wallet is gaining popularity among the Indian consumers. Phonepe is the most popular digital wallet among the customers followed by Google Pay. As there are advantages there are many obstacles also in the usage of digital wallets those are security, time consumption etc.
6. (Kumar & Gupta, 2020)	Security and risk in Private banks, public banks and foreign banks	25	Consistency ratio	Users are more concerned about security followed by privacy and trust.
7. (Jain & Sabharwal, 2020)	Gender, age, Profession	153	Chi-square test	Out of surveyed population maximum people uses e-wallets which proves that even after demonetization people don't lose their trust on economy. Youth prefers e-wallets more as compared to other age groups.
8. (Dr. C. VIJAI, 2019)	Customer awareness	100	Percentage Analysis	Majority of population is aware about mobile wallets and people gather information from online sources

Contd...

9. (Kudesia & Pradhan, 2019)	Mobile wallets adoption, momentous desparity	300	Percentage, Bar graph, pie charts	people don't have education on mobile wallets and they also face the network issues in their area. People have less awareness towards digital wallet.
10. (Yamuna, Praveen, Thomas, Kumar, & Pradeep, 2019)	Users Awareness	200	Percentage	The usage of the digital transaction and comfort ability of digital transaction is being wider and wider day by day. Development of any confidential transaction and dynamic nature of digital payment system is highly supported by the government.
11. (KANT, 2019)	Usage of mobile wallets	10 digital wallets	Literature review	Due to busy schedules and being occupied, the mass public face the difficulty of purchasing goods to go onto the market and buy the product, so a vast number of people shifted towards online buying of goods instead of going out into the market.
12. (Tiwari & Garg, 2019)	Consumers attitude, awareness and adoption	200	ANOVA, Regression And Co-Relation	People face security issues in mobile wallets. Majority of population prefers digital wallets. Young population prefers digital wallets due to convenience.

Contd...

13. (Padiya & Bantwa, 2018)	Frequency of using e-wallets, reasons for not using e-wallets	458	Percentage analysis, ANOVA	Paytm, Mobiwik and freecharge have been used for study. Maximum people prefers Paytm. People find more comfort in making payment via cash and it would be difficult to influence them for e-wallets as they don't want to move out from their comfort zone.
14. (Soe & Mikheeva, 2017)	Cases from smart cities	4 smart cities	Survey	Hongkong is the top city in electronic payments. Estonia and Finland hold leading positions globally in the implementation of e-invoices.

Objectives of Study

1. To examine the risks to the customers due to mobile banking and factors responsible for these risks in the selected mobile wallets.
2. To suggest the ways to reduce the negative impact of discomfort of digital wallet on Users satisfaction.

Research Methodology

The universe for the purpose of this study comprises of all the digital wallet companies in India. For the present study, judgmental sampling will be used for sample selection of 400 users of digital wallets. To find out the patterns of relationship that exist among data-groups, some of the tools used for this purpose is ANOVA and reliability test. Data has been analyzed with the help of Statistical Package of Social Science (SPSS, version latest).

Variable	Reliability Statistics	
	Cronbach's Alpha	N of Items
R&I	0.81	6
COMF	0.82	6

Analysis and Interpretation

Profession wise Perception of users for Risk and Insecurity in mobile wallets

As is evident from the Table 1.1, as per statement no. 1, others (mean = 4.17, SD = 1.11) find that Compensation should be given to customers for the money lost due to frauds by hackers as compared to govt. job people (mean = 3.70, SD = 1.25), private job people (mean = 3.48, SD = 1.25) and business people (mean = 3.58, SD = 1.15). As per ANOVA, $f = 14.44$ and $p = 0.00$. Therefore null hypothesis (H_{01s}) rejected at 5% significance. Statistically there is a significance relationship between Profession of users' and risk and insecurity in mobile wallets of the customers in the selected Government and private mobile wallets. As per statement no. 2, others (mean = 3.99, SD = 1.05) find that human touch is very important when doing business with a company as compared to govt. job people (mean = 3.50, SD = 1.15), private job people (mean = 3.42, SD = 1.11) and business (mean = 3.41, SD = 1.08). As per ANOVA, $f = 13.73$ and $p = 0.00$. Therefore null hypothesis (H_{01s}) rejected at 5% significance. Statistically there is a significance relationship between Profession of users' and risk and insecurity in mobile wallets of the customers in the selected Government and private mobile wallets. As per statement no. 3, others (mean = 3.50, SD = 1.15) do not consider it safe giving out a credit card number over a computer as compared to govt. job people (mean = 3.30, SD = 1.03), private job people (mean = 3.18, SD = 1.10) and business (mean 3.08, SD = 1.16). As per ANOVA, $f = 5.15$ and $p = 0.00$. Therefore null hypothesis (H_{01s}) rejected at 5% significance. Statistically there is a significance relationship between Profession of users' and risk and insecurity in mobile wallets of the customers in the selected Government and private mobile wallets. As per statement no. 4, business people (mean = 3.43, SD = 1.12) do not consider it safe to do any kind of financial transaction online as compared to govt. job people (mean = 3.21, SD = 1.08), private job people (mean = 3.06, SD = 1.03) and others (mean = 3.24, SD = 1.21). As per ANOVA, $f = 3.14$ and $p = 0.02$. Therefore null hypothesis (H_{01s}) rejected at 5% significance. Statistically there is no significance relationship between Profession of users' and risk and insecurity in mobile wallets of the customers in the selected Government and private mobile wallets. As per statement no. 5, others (mean = 3.26, SD = 1.21) worry that information you send over the Internet will be seen by other people as compared to govt. job people (mean = 2.92, SD = 1.00), private job people (mean = 3.16, SD = 1.05) and business people (mean = 3.23, SD = 1.08). As per ANOVA, $f = 2.30$ and $p = 0.07$. Therefore null hypothesis (H_{01s}) accepted at 5% significance.

Statistically there is no significance relationship between Profession of users' and risk and insecurity in mobile wallets of the customers in the selected Government and private mobile wallets. As per statement no, 6, others (mean = 3.23, SD = 1.23) do not feel confident doing business with a place that can only be reached online as compared to govt.job people (mean = 3.25, SD = 1.05), private job people (mean = 3.07, SD =

Table 1.1
Profession wise Perception of users for Risk and Insecurity in mobile wallets

Risk and Insecurity	Education	N	Mean	SD	ANOVA	
					F	P
1. Recovery of loss should be done to customers due to frauds by hackers.	GOVT. JOB	100	3.7	1.25	14.44	0
	PRIVATE JOB	100	3.48	1.25		
	BUSINESS	100	3.58	1.15		
	OTHER	100	4.17	1.11		
2. The physical touch of human is very important while doing business with a company.	GOVT. JOB	100	3.5	1.15	13.73	0
	PRIVATE JOB	100	3.42	1.11		
	BUSINESS	100	3.41	1.08		
	OTHER	100	3.99	1.05		
3. You do not consider it safe giving out a credit card number over a computer	GOVT. JOB	100	3.3	1.03	5.15	0
	PRIVATE JOB	100	3.18	1.1		
	BUSINESS	100	3.08	1.16		
	OTHER	100	3.5	1.15		
4. It is not consider safe to do any online financial transaction.	GOVT. JOB	100	3.21	1.08	3.14	0.02
	PRIVATE JOB	100	3.06	1.03		
	BUSINESS	100	3.43	1.12		
	OTHER	100	3.24	1.21		
5. There is a stress of information leakage over the Internet.	GOVT. JOB	100	2.92	1	2.3	0.07
	PRIVATE JOB	100	3.16	1.05		
	BUSINESS	100	3.23	1.08		
	OTHER	100	3.26	1.21		
6. People do not feel confident in doing business with a place that can only be reached online.	GOVT. JOB	100	3.25	1.05	2.06	0.1
	PRIVATE JOB	100	3.07	1.08		
	BUSINESS	100	3.22	1.04		
	OTHER	100	3.32	1.23		

1.08) and businesspeople (mean = 3.22, SD = 1.04). As per ANOVA, $f = 2.06$ and $p = 0.10$. Therefore null hypothesis (H_{01s}) accepted at 5% significance. Statistically there is no significance relationship between Profession of users' and risk and insecurity in mobile wallets of the customers in the selected Government and private mobile wallets.

Profession wise perception of users for comfort in mobile wallets

As is evident from the Table 1.2, other people (mean = 3.32, SD = 1.00) find that Technical support lines of mobile wallets are not helpful because they do not explain things in terms you understand as compared to govt. job people (mean = 3.15 and SD = 1.00), private job people (mean = 3.13, SD = 1.02) and business people (mean = 3.18, SD = 1.03). As per ANOVA, $f = 1.56$ and $p = 0.20$. Therefore null hypothesis (H_{01r}) accepted at 5% significance. Statistically there is no significance relationship between Profession of users' and comfort in mobile wallets of the customers in the selected Government and private mobile wallets. As per statement no. 2, business people (mean = 3.33, SD = 0.96) find that technology systems are not designed for use by common people as compared to govt. job people (mean = 3.06, SD = 0.97), private job people (mean = 3.07, SD = 1.03) and others (mean = 3.20, SD = 1.10). As per ANOVA, $f = 2.15$ and $p = 0.00$. Therefore null hypothesis (H_{01r}) rejected at 5% significance. Statistically there is a significance relationship between Profession of users' and comfort in mobile wallets of the customers in the selected Government and private mobile wallets. As per statement no. 3, others (mean = 3.43, SD = 0.99) find that there should be caution in replacing important people-tasks with technology because new technology can breakdown or get disconnected as compared to govt. job people (mean = 3.38, SD = 0.99), private job people (mean = 3.35, SD = 1.01) and business people (mean = 3.38, SD = 1.00). As per ANOVA test, $f = 0.27$ and $p = 0.85$. Therefore null hypothesis (H_{01r}) accepted at 5% significance. Statistically there is no significance relationship between Profession of users' and comfort in mobile wallets of the customers in the selected Government and private mobile wallets. As per statement no. 4, others (mean = 3.43, SD = 1.05) find that Many new technologies have health or safety risks that are not discovered until after people have used them as compared to govt. job employees (mean = 3.20, SD = 1.13), private job people (mean = 3.17, SD = 1.02) and business people (mean = 3.21, SD = 0.99). As per ANOVA, $f = 2.75$ and $p = 0.04$. Therefore null hypothesis (H_{01r}) rejected at 5% significance. Statistically there is no significance relationship between

profession of users' and comfort in mobile wallets of the customers in the selected Government and private mobile wallets. As per statement no. 5, others (mean = 3.76, SD = 1.02) find that New technology makes it too easy for governments and companies to spy on people as compared to govt. employees (mean = 3.35, SD = 0.98), private job employees (mean

Table 1.2
Profession wise Perception of users for Comfort in mobile wallets

Comfort	Education	N	Mean	SD	ANOVA	
					f	P
1. Technical support of mobile wallets are not helpful because they do not explain things in terms you understand.	GOVT. JOB	100	3.15	1.00	1.56	0.20
	PRIVATE JOB	100	3.13	1.02		
	BUSINESS	100	3.18	1.03		
	OTHER	100	3.32	1.00		
2. Sometimes, you think that technology systems are not designed for use by common people.	GOVT. JOB	100	3.06	0.97	2.15	0.00
	PRIVATE JOB	100	3.07	1.03		
	BUSINESS	100	3.33	0.96		
	OTHER	100	3.20	1.10		
3. There should be caution in replacing important people-tasks with technology because new technology can breakdown or get disconnected.	GOVT. JOB	100	3.38	0.99	0.27	0.85
	PRIVATE JOB	100	3.35	1.01		
	BUSINESS	100	3.38	1.00		
	OTHER	100	3.43	0.99		
4. Many new technologies have health or safety risks that are not discovered until after people have used them.	GOVT. JOB	100	3.20	1.13	2.75	0.04
	PRIVATE JOB	100	3.17	1.02		
	BUSINESS	100	3.21	0.99		
	OTHER	100	3.43	1.05		
5. New technology makes it too easy for governments and companies to spy on people.	GOVT. JOB	100	3.35	0.98	9.25	0.00
	PRIVATE JOB	100	3.42	1.06		
	BUSINESS	100	3.21	0.98		
	OTHER	100	3.76	1.02		
6. Technology always seems to fail at the worst possible time.	GOVT. JOB	100	3.06	1.12	5.66	0.00
	PRIVATE JOB	100	3.09	1.06		
	BUSINESS	100	3.08	0.97		
	OTHER	100	3.43	1.02		

= 3.42, SD = 1.06) and business people (mean = 3.21, SD = 0.98) As per ANOVA, $f = 9.25$ and $p = 0.00$. Therefore null hypothesis (H_{01r}) rejected at 5% significance. Statistically there is a significance relationship between profession of users' and comfort in mobile wallets of the customers in the selected Government and private mobile wallets. As per statement no. 6, others (mean = 3.43, SD = 1.02) find that Technology always seems to fail at the worst possible time as compared to govt. employees (mean = 3.06, SD = 1.12), private employees (mean = 3.09, SD = 1.06) and business (mean = 3.08, SD = 0.97). As per ANOVA, $f = 5.66$ and $p = 0.00$. Therefore null hypothesis (H_{01r}) is rejected at 5% significance. Statistically there is no significance relationship between Profession of users' and comfort in mobile wallets of the customers in the selected Government and private mobile wallets.

Conclusion

Government employees find that mobile wallets can be an alternative choice payment. Others (including small vendors, shopkeepers) find that new technology is often too complicated to be useful. Others (including small vendors, shopkeepers) find that e-payment enables them to accomplish tasks more quickly. Others (including small vendors, shopkeepers) find that using e-payment improves their job performance. Others (including small vendors, shopkeepers) find that using e-payment makes it easier to do their job. Others (including small vendors, shopkeepers) find that they can make the efficient completion of the payment for shopping and other expenses. Others (including small vendors, shopkeepers) find mobile wallets makes rapid completion of the payment of bills. Others (including small vendors, shopkeepers) find human touch is very important when doing business with a company. Others (including small vendors, shopkeepers) do not consider it is safe giving out a credit card number over a computer. Business people do not consider it is safe to do any kind of financial transaction online. Others (including small vendors, shopkeepers) worry that information they send over the Internet will be seen by other people. Others (including small vendors, shopkeepers) do not feel confident doing business with a place that can only be reached online. Others (including small vendors, shopkeepers) find that any business transaction you do electronically should be confirmed later with something in writing. Others (including small vendors, shopkeepers) find that when they call a business, they prefer to talk to a person rather than a machine. Others find that if they provide information to a machine or

over the Internet, they can never be sure it really gets to the right place. Others (including small vendors, shopkeepers) find it risky to switch to a revolutionary new technology too quickly. Business people find if they purchased something from a machine using a credit card, they would usually not require a receipt. Others (including small vendors, shopkeepers) worry that information you send over the Internet will be seen by other people. Others (including small vendors, shopkeepers) have freedom to set their own terms and preferences. Others (including small vendors, shopkeepers) find it easy to get e-payment to do what they want it to do. Others (including small vendors, shopkeepers) find that usage of e-payment is clear and understandable. Others (including small vendors, shopkeepers) find it easy for them to remember how to perform tasks using e-payment. Others (including small vendors, shopkeepers) find that when they pay the amount with digital wallet and any error occurs, they can easily correct it. Others (including small vendors, shopkeepers) find it is easy to understand the process of payment via mobile wallets. Government employees find new technology too complicated to use.

Other (including small vendors, shopkeepers) find that technical support lines of mobile wallets are not helpful because they do not explain things in terms they understand. Business people find that technology systems are not designed for use by common people. Others (including small vendors, shopkeepers) find that there should be caution in replacing important people-tasks with technology because new technology can breakdown or get disconnected. Others (including small vendors, shopkeepers) find that many new technologies have health or safety risks that are not discovered until after people have used them. Others (including small vendors, shopkeepers) find that new technology makes it too easy for governments and companies to spy on people. Others (including small vendors, shopkeepers) find that technology always seems to fail at the worst possible time. Others find that with new technology, they too often risk paying a lot of money for something that is not worth much. Others (including small vendors, shopkeepers) find it limiting to use high-tech products that are designed to be overly simple. Others find that people miss out on the benefits of technology when they delay a purchase for something better to come out. Others (including small vendors, shopkeepers) feel that they are usually in control of new technologies. Others (including small vendors, shopkeepers) feel that when they have a problem with technology, they prefer to solve the problem on their

own rather than call for help. Others (including small vendors, shopkeepers) find the hassle of getting new technology to work for them usually makes it not worthwhile. Others (including small vendors) find that they can usually figure out new high-tech products and services without help from others. Others (including small vendors, shopkeepers) find that they are among the first in the circle of friends to acquire new technology when it appears. Others (including small vendors, shopkeepers) enjoy the challenge of figuring out high-tech gadgets. Others (including small vendors, shopkeepers) find that other people come to them for advice on new technologies. Others (including small vendors, shopkeepers) find fewer problems than other people in making technology work for them. In government wallets, people have freedom to set their own terms and preferences as compared to private sector wallets. People doing business find more risk and insecurity in digital wallets as compared to govt. job people and private job people. People doing government job find more comfort in digital wallets as compared to private job people.

References

- [1] Jain, M., & Sabharwal, M. (2020). USE OF E-WALLETS: CURRENT STATUS AND FUTURE CHALLENGES. *XXI Annual International Conference Proceedings; January 2020*, (pp. 388-396). Delhi.
- [2] Kumar, M., & Gupta, S. (2020). Security perception of e-banking users in India: an analytical hierarchy process. *"Banks and Bank Systems"*, 15(1), 11-20.
- [3] Padiya, D., & Bantwa, P. (2018). Adoption of E-wallets: A Post Demonetisation Study in Ahmedabad City. *Pacific Business Review International*, 84-95.
- [4] Soe, R.-M., & Mikheeva, O. (2017, SEPT). Combined model of smart cities and electronic payments. *International Conference for E-Democracy and Open Government*, 194-205. IEEE COMPUTER SOCIETY.
- [5] A block-chain excellency in the mining of crypto currency. (2022). *Journal of Information and optimization sciences*, 123-130.
- [6] Bhama, K. S., & Priya, C. S. (2020). A STUDY ON CONSUMER PERCEPTION TOWARDS USAGE OF MOBILE WALLET. *International Journal of Scientific Development and Research (IJSDR)*, 5(2), 148-151.

- [7] Dr.C.VIJAI. (2019). MOBILE WALLET AND ITS FUTURE IN INDIA. *Journal of Emerging Technologies and Innovative Research*, 6(5), 574-580.
- [8] Jayanthi, P., & Kamakshi, S. (2021). Consumer Preference on Mobile Wallet during COVID 19 with special reference to Chengalpet District. *Svādhyāya - International Journal of Transdisciplinary Research and Development*, 1(2), 57-69.
- [9] KANT, K. (2019). Role of E-wallets in constructing a virtual (Digital) Economy. *Journal of Emerging Technologies and Innovative Research (JETIR)*, 6(3), 560-565.
- [10] Katti, S., & Angadi, A. (2020). Perception of Indian Consumers towards Digital Wallets a Study. *International E Conference on Adapting to the New Business Normal – The way ahead*, 1-7.
- [11] Kudesia, A., & Pradhan, J. (2019). DIGITAL WALLET EVOLUTION AT CHHATTISGARH. *Journal of Management (JOM)*, 6(1), 84-88.
- [12] S., T. (July 2020). MOBILE WALLET: PREFERENCE and satisfaction of its users.
- [13] Sahi, A. M., Khalid, H., Abbas, A. F., Zedan, K., . Khatib, S. F., & Amosh, H. A. (2022). The Research Trend of Security and Privacy in Digital Payment. *Informatics*, 1-23.
- [14] Tiwari, P., & Garg, V. (2019). A study of Consumer adoption of Digital Wallet special Reference to NCR. *IEEE*, 664-669.
- [15] Yamuna, M. S., Praveen, M., Thomas, M., Kumar, N., & Pradeep, R. (2019). An exploratory study on user's perception towards digital Financial Transaction In Coimbatore. *International Journal For Scientific research and development*, 7(2), 1977-1980.
- [16] Pawan Kumar, Reshma, Kamal Kant Sharma & Abhishek Gandhar (2022) A block-chain excellency in the mining of crypto currency, *Journal of Information and Optimization Sciences*, 43:1, 123-130, DOI: 10.1080/02522667.2022.2037281
- [17] Yu-Cheng Lee & Chia-Huei Wu (2014) A Duo-Theme DEMATEL approach for exploring the driving factors of online luxury goods sales: E-retailers' perceptions, *Journal of Information and Optimization Sciences*, 35:2, 177-202, DOI: 10.1080/02522667.2013.876773