

The Role of E-Wallets in Enhancing Business Operations and Consumer Satisfaction in the Unorganized Sector of Nagpur City

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Cite this paper as: Ms. Madhuri Barua, Dr. Aarti Deshpande, (2025) The Role of E-Wallets in Enhancing Business Operations and Consumer Satisfaction in the Unorganized Sector of Nagpur City. *Journal of Neonatal Surgery*, 14 (5s), 140-145

Received:10/11/2024

Accepted:10/12/2024

Published:15/01/2024

ABSTRACT

The digital payment solutions especially e-wallets have changed how businesses operate and consumers transacted across industries. But in the vast unorganized sector, where cash is king, the entry of e-wallets has opened doors of opportunities as well as posed some challenges as well. The study analyses the impact of e-wallets in the business growth and consumer satisfaction in the unorganized sector of Nagpur. Using a mixed method approach, primary data was gathered through structured surveys and interviews from small business owners and consumers. The findings suggest important determinants of applicable adoption of e-wallet, such as ease of use, transaction security, financial literacy and infrastructural barriers. Inherent to the aforementioned sections is the role that e-wallets play in improving business processes, record keeping and overall efficiency, and serving as a convenient tool for consumers even though those factors are not directly part of the research. Digital payment in the form of e-wallets has made both shopping and payments easy and can be made in a couple of clicks and make the customer experience better, but trust issues and lack of awareness are known to be some of the biggest challenges in the location. The study ends with valuable suggestions focused on the need of stakeholders like policy makers, banks and financial institutions and fintech companies in the enhancing adoption of digital payments in unorganized sector which will lead towards financial inclusion and economic development.

Keywords: E-wallets, digital payments, unorganized sector, business operations, consumer satisfaction, Nagpur, financial inclusion, fintech adoption.

1. INTRODUCTION

The acceleration of financial technology (FinTech) has transformed the landscape in which businesses and consumers conduct transactions significantly. E-wallets have emerged as popular ways to pay in the digital payments space, as they offer convenience, security, and enable cashless transactions. E-wallets are already being adopted by organized businesses, but its penetration into the unorganized sector is interesting. In Indian Economics, the unorganized sector, which includes small vendors, street merchants, and micro-businesses are a vital component of the economy, especially in cities like Nagpur. But with a cash-intensive economy, poor digital literacy, and infrastructural obstacles, the transition to e-wallets for the non-formal sector has been slow.

This research is focused at understanding the role of e-wallets in promoting business facilities and enhancing consumer satisfaction in the unorganized level of Nagpur. It also explores the facilitators and barriers to e-wallet adoption and whether digital payment solutions can enhance efficiency, transaction transparency, and customer convenience. Furthermore, the research evaluates consumer perceptions of e-wallets in terms of comfort, trust, and usability for everyday transactions with small enterprises.

Implications of e-wallet adoption patterns and challenges in the unorganised sector have large implications on both financial inclusion and digital transformation. Highlights of the research will inform stakeholders such as policymakers, fintech companies, and financial institutions to create targeted interventions that foster digital payments usage for small-scale enterprises and their customers.

2. LITERATURE REVIEW

The new digital age is all about mobile. Therefore, e-wallet, which is one of these transactions, is only one of the many classical works that can be performed in a virtual environment accessed through a mobile phone. Mobile-based payment apps enable customers to engage financially quickly and simply, without compromising on safety (Singh & Srivastava, 2018). An e-wallet (also known as a digital wallet) is a computerized device, an online service, or a software application that allows an individual to make electronic transactions (Karnouskos, 2004). According to Nawi et al. (2024), the usage of E-wallets for daily online purchasing has been increased significantly. Seetharaman et al. (2017) concluded that e-wallets offer similar advantage as real wallets in various cashless transactions. Despite their capacity to facilitate monetary transactions effectively and sustainably, e-wallets provide inherent risks that cannot be overstated (Karim et al., 2020). However, the result will be good or bad, depending on user experiences or how consumers view information based on electronic wallets, as information may be contacted differently by consumers through a coin or e-wallet. Digital wallets makes it easier for consumers to need to do transactions and pay (Yuan et al., 2016).

According to Statista (n.d.), the e-wallet industry is projected to reach transaction value of \$4,665,829,000,000 in 2025, with an annual growth rate of 17.28 percent very promising. Developing countries may prove to prosper from the boom of e-wallets, especially in the case of the Chinese marketplace, where the emergence of a cashless society revolutionised society, with the sum of payment behaviours adopted by people. (Xiaoting (Maya) Liu) The growth of related industries such as e-commerce and delivery services is one of the factors that has helped popularise e-wallets in the Vietnamese market in recent years. A recent Visa study found that nearly 90% of respondents had an electronic wallet or payment app on their phone, while 71% reported using one at least once a week (Pwc report, 2021). According to Aarti et al. (2021), and the e-wallet sector in Vietnam is projected to grow by over 30% from 2020 to 2027. It is envisioned to place among the top three in the Asia area in terms of penetration rate of the nation.

With the emergence of e-wallets being a viable avenue in today's progressed industry, competition between financial marshals has risen. As consumers are increasingly concerned with the environment, they have been motivated to shop more consciously (Van Tonder et al., 2023), and electronic wallets are a useful instrument to help reduce paper usage. Such acquisition of share of the market is a growing concern as the industry welcomes more players, even if Momo and ZaloPay are big names in Vietnam. Businesses must know what makes people use electronic wallets to remain relevant and competitive in the market. It is only by doing this they can then appropriately orient their marketing efforts to attract new clients, enhance services that inspire loyalty, and ultimately thrive.

In the sense of professionally being "adoption ready," fans are also working and learning to "Think Different" (Parasuraman, 2000). Several critical factors influence the readiness to embrace e-wallets against the backdrop of digital financial transactions. Strong technological infrastructure — robust connectivity and readily accessible digital devices — is the bedrock for wide-scale adoption. According to the current study, several factors regarding the utility and ease of use condition affect a person's thump up for using e-wallets. Peer pressure is also likely to contribute to such acceptability of use. According to Rahardja et al. (2023), individuals who are lower on the trait dimension of openness are more likely to focus on potential downsides and problems that can arise from making an adjustment.

Perceived ease of use refers to consumers perceive | their subjective impressions of how effective and simple the system or technology is in use. When it comes to this, people understand that the technology or system is user-friendly and doesn't bring any hassle. Positive perceptions of a system or technology lead to acceptance and utilization (Nawi et al., 2024). In the realms of technology adoption and user experience, the concept of perceived utility is commonly applied to assess the extent to which an individual believes a specific system or technology could enhance performance and make life easier (Thuy, 2024). They can use it without worrying about any difficulties so if such technologies or systems they really are beneficial and easy to go for then they will be more interested in using such technologies or system

Another important aspect is facilitating access to tools and methods, as the easier it is to use them, the better the behavioural intentions. According to Chan et al. "facilitating conditions" are conditions in which a person believes it possible that the existing methods and infrastructure of the organisation will support industrial usage with Raman, S. (2010). This could be seen as making the best possible conditions for the user preparedness. From shaping user intents to influencing loyalty, social factors in the form of social influence are omnipresent motivators in encouraging people to engage in socially themed behaviours (Gong et al., 2020, Singh and Srivastava, 2020).

The four corners of the adoption ready structure of new technologies (or, more precisely, e-wallets, in the case of the present study) are perceived utility, social impact, enabling conditions, and simplicity of use. The current study aims to explore these four constructs by incorporating them into the adoption the ready framework to understand their impact on behavioural intentions. Furthermore, the current study examines the association between the willingness to use e-wallets with innovativeness and behaviour intentions. Personal innovativeness in technology (Wu and Yu, 2022) is defined as an individual's willingness to accept and try out new systems and technologies.

Objectives of the Study

1. To examine the extent of e-wallet adoption among businesses in the unorganized sector of Nagpur.
2. To analyze the factors influencing the adoption of e-wallets by small business owners and consumers.
3. To assess the impact of e-wallets on business operations, including transaction efficiency and financial management.

Hypothesis of the Study

H₀ (Null Hypothesis): There is no significant relationship between various factors (such as ease of use, security, financial literacy, and infrastructure) and the adoption of e-wallets by small business owners and consumers in the unorganized sector of Nagpur.

H₁ (Alternative Hypothesis): There is a significant relationship between various factors (such as ease of use, security, financial literacy, and infrastructure) and the adoption of e-wallets by small business owners and consumers in the unorganized sector of Nagpur.

3. RESEARCH METHODOLOGY

This study used a mixed method research approach using both qualitative and quantitative methods to know the factors affecting small business owners and consumers of Nagpur in adopting e-wallet in the unorganized sector. In-depth interviews with small businesses, street vendors, and consumers regularly transacting in the unorganized sector provide the primary data. The survey is stratified by business type and consumer demographic for proper representation. It contains questions related to e-wallet usage patterns, perceived benefits, challenges, and key factors influencing usage such as ease of use, security, financial literacy, and the infrastructure. Furthermore, secondary data was collected through research articles, reports and government publications to assist the analysis. Statistical techniques including descriptive analysis, analysis of correlation, and regression are used to analyse the collected data to determine the influence factors affecting the adoption of e-wallet. Interviews also give you qualitative insights that help you better understand behavioral attitudes and resistance to digital payments. The results of this study will provide insights for policymakers, fintech companies, and financial institutions on ways to improve the adoption of digital payments in the unorganized sector.

Descriptive Statistics Table

Factors Influencing E-Wallet Adoption	Mean	Standard Deviation	Minimum	Maximum	% of Positive Responses
Ease of Use	4.12	0.85	1	5	78%
Security and Trust	3.85	0.92	1	5	72%
Financial Literacy	3.68	0.97	1	5	65%
Infrastructure Availability	3.45	1.05	1	5	60%
Transaction Speed	4.05	0.88	1	5	75%
Consumer Willingness to Use E-Wallets	3.92	0.91	1	5	70%
Business Owners' Willingness to Accept	3.55	1.02	1	5	62%

Analysis of Descriptive Statistics

Hence based on descriptive statistics, the determinants of e-wallet adoption in the unorganized sector of Nagpur are presented. Of these, Ease of Use had the highest mean score of 4.12 and a standard deviation of 0.85 suggesting that overall, most respondents consider e-wallets to be user-friendly, with 78% demonstrating a positive perception. Transaction Speed (Mean = 4.05, SD = 0.88) is, in comparison, another important driver as 75% of respondents also cite the quick and seamless nature of e-wallet transactions.

Security and Trust issues (Mean = 3.85, SD = 0.92) remain a concern, as 72% of users agree that they feel confident in executing digital transactions, while some continue to exercise caution. Financial Literacy (Mean = 3.68, SD = 0.97) is also important, with additions of 65% of respondents being able to explain e-wallet functions while substantial proportions of respondents start to be unaware.

Infrastructure Availability has the lowest mean (3.45) and also the highest standard deviation (1.05), indicating variance in

responses, thus showing that it is one of the main challenges for e-wallet acceptance. In a related survey, respondents rated only 60% of the availability of requisite infrastructure like smartphone view on the internet.

The study also assesses readiness to use e-wallets. Consumer Willingness to Use E-Wallets (Mean = 3.92, SD = 0.91) scores relatively high (70% positive responses) in contrast to Business Owners' Willingness to Accept E-Wallets at slightly lower records (Mean = 3.55, SD = 1.02, 62% positive responses), showing that some business owners are still reluctant due to transaction fees; trust issues, and the preference for cash transactions.

Overall, the results indicate that e-wallets are considered efficient and user-friendly, while factors such as infrastructure constraints, financial literacy gaps, and trust issues continue to obstruct widespread adoption in the unorganized sector. Breaking down these barriers through targeted awareness programs, improved security features, and better digital infrastructure can potentially further boost the adoption of e-wallets in SMEs and consumers in Nagpur.

Table: Correlation Analysis

Variables	E-Wallet Adoption	Ease of Use	Security & Trust	Financial Literacy	Infrastructure Availability
E-Wallet Adoption	1	0.712**	0.645**	0.598**	0.550**
Ease of Use	0.712**	1	0.680**	0.620**	0.570**
Security & Trust	0.645**	0.680**	1	0.610**	0.540**
Financial Literacy	0.598**	0.620**	0.610**	1	0.510**
Infrastructure Availability	0.550**	0.570**	0.540**	0.510**	1

Analysis of Correlation Results

Correlational analysis studies the strength and direction of the linear relationship of different factors like ease of use, security & trust, financial literacy, infrastructure availability, etc. with the adoption of e-wallet in an unorganized sector of Nagpur.

Ease of use has the highest positive correlation with e-wallet adoption ($r = 0.712$, $p < 0.01$), meaning that the more convenient and user-friendly the e-wallet is, the more likely it is to be adopted by small business owners and consumers. This means that interface design and simplicity of transactions are key adoption drivers.

The adoption of e-wallet is also positively and significantly correlated with Security & trust ($r = 0.645$, $p < 0.01$), which means that users need safety, fraud protection and data security and consider these aspects when using digital payment systems. It indicates that stronger consumer awareness and security features could drive more usage rates.

This indicates that financial literacy has a moderate positive relationship with e-wallet adoption ($r = 0.598$, $p < 0.01$) suggesting that more financially aware and knowledgeable individuals in making digital payments would be more gaudy on e-wallet. It emphasises the importance of implementing financial literacy schemes and awareness campaigns to promote digital transactions in the unorganised sector.

Infrastructure availability has the lowest correlation with e-wallet adoption ($r = 0.550$, $p < 0.01$) but remains significant. This suggests that while access to the underlying infrastructure of digital payment—devices such as mobile phones, internet connectivity—is a factor in adoption, it is less important than ease of use and security.

In summary, the results highlight that to enhance e-wallet adoption in the unorganized sector, increasing user-friendly security features is the main area to address. Communications and That said, this transition will need to be accompanied by additional efforts to improve financial literacy and broaden access to the digital infrastructure that allows consumers to transact non-cash. The positive and significant relationships between all factors validate their joint influence on the adoptability of e-wallets, leading to confirmation of the alternative hypothesis (H_1).

4. OVERALL CONCLUSION

It is evident that financial literacy is also a core factor as people with sound knowledge of digital financial transactions are more likely to adopt the e-wallets usage. Although infrastructure availability (such as internet connection and access to smartphones) affect adoption as well, it has a minor effect as compared to ease of use and security.

The results for the correlation analysis reveal a strong positive relationship between the mentioned factors and e-wallet adoption, confirming the alternative hypothesis (H_1). For getting higher adoption rates in the unorganized sector, it

emphasizes on improving awareness about digital payments among the workforce, strengthening security measures, and simplifying user interfaces.

The findings have implications for policymakers and financial institutions: targeted interventions (like it) to enhance financial literacy, improve digital infrastructure, and boost cybersecurity measures could further accelerate the transition to a cashless economy. The unorganized sector businesses can also avail the benefits of efficiency, transparency and customer convenience because of e-wallet linked systems. Overall, the study highlights the increasing acceptance of e-wallets in the unorganized sector and suggests that with better digital accessibility and trust-building initiatives, this trend is likely to continue.

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