Research Paper

Consumer Perception and Adoption of Mobile Commerce in Rural Haryana: Awareness, Usage Patterns, Influencing Factors, and Challenges

Manisha[1]. Dr. Vinay Nandal[2], Dr. Shikha Daga[3], Suman Sharma[4]

[1]Research Scholar, Faculty of Management and Commerce, Baba Mastnath University
[2]Assistant Professor, Faculty of Management and Commerce, Baba Mastnath University
[3]Associate Professor, PGDAV College, University of Delhi
[4]Assistant Professor, Chandigarh School of Business, Mohali

Abstract
M-commerce is a subset of e-commerce, and both are products of digitization. Being user-friendly and time-effective, the field of m-commerce offers opportunities for various types of research. Researchers have attempted to identify the factors influencing consumer perception and behavior. M-commerce relies on digital literacy; the higher the level of digital literacy, the greater the digital divide. This study aims to explore consumer preferences among m-commerce users and compare the usage of m-commerce between urban and rural populations. Findings indicate that m-commerce is popular in rural areas, even though the literacy rate is low.

I. Introduction:

Digitization has transformed the world in numerous ways, with one of its most significant products being the digital payment system, which has revolutionized the digital economy (Kumar, 2024). Digitization also gave rise to e-commerce, which refers to financial transactions conducted through the internet. With advancements in information technology, e-commerce gained popularity and acceptance in India (Trivedi & Sanchiher, 2023). It has created numerous opportunities for jobs and businesses (Farmanesh, 2023). According to a Deloitte study, India is projected to have 1 billion internet users, making it the second-largest market after China (The Economic Times, 2022; Keelery, 2021). This rapid growth is expected to directly impact both the e-commerce and m-commerce sectors.

Smartphones have become multifunctional tools used for transactions, emails, gaming, internet browsing, accessing information, GPS navigation, and account management (Waqis, Johari, et al., 2022). The diverse usage of smartphones highlights the need for distinct infrastructure tailored to the varying requirements of e-commerce and m-commerce users (Hathi, 2023).

M-commerce, a subset of e-commerce, has significantly influenced purchase habits. The growing reliance on electronic gadgets is fueled by the increasing adoption of m-commerce as a convenient and efficient option. Information flow through m-commerce has become faster, more trustworthy, and, in some cases, indispensable (Benson, 2021). After demonetization in India, the transaction became more cashless and digital than hard cash (**Gupta, & Hakhu, 2020**).

Interestingly, m-commerce is witnessing significant growth in rural areas, playing a vital role in bridging the digital divide. This paper focuses on how m-commerce is reshaping consumer perception and behavior, particularly in Haryana. It examines the factors influencing m-commerce adoption in both rural and urban societies. As the population of Haryana as per the Census 2011 is approximately 2 crores, with dominant population of rural area that is 71%. Due to poor health of agriculture market youth is migrating towards urban areas, which impacts the understanding and acceptance of m-commerce (Kumar, & Rathee, 2010).

To gain deeper insights, this study emphasizes the need to understand consumer awareness, usage patterns, and preferences, which are key to analyzing the evolving dynamics of m-commerce in the region.

II. Literature and theoretical background

The literature collected for this paper consistently highlights the positive impact of e-wallets and m-commerce on the rural population. There is a growing positive consumer perception toward digitization.

Kumar (2024) explored consumer perspectives regarding the use of mobile wallets in Haryana. This paper serves as an essential foundation for studying the population's perception of digitization in Haryana. It also examines government-led campaigns to promote mobile wallet usage. Notably, rural residents of Haryana have shown a positive correlation with the acceptance of mobile wallets, despite challenges like limited information and the digital divide.

Jaideep (2023) conducted research on consumer perception among Haryanvis. The findings suggest that the usage of mobile wallets is perceived as a marker of elevated social status, particularly among the rural population.

Fernandes (2023) focused on how technology has influenced marketing management and advertising processes. This study highlighted a crucial observation: as rural youth increasingly migrate to urban areas, the gap between the digital divide in rural and urban areas is narrowing. Rural consumers also exhibit a belief that products purchased through online platforms are of better quality. The expansion of e-commerce from urban to rural areas demonstrates the growing digital adoption across regions.

A study by **Gupta and Hakhu (2020)** revealed that while e-commerce had long enjoyed popularity, the increasing usage of smartphones has propelled e-commerce to prominence. The shift toward digital or e-banking and cashless transactions became especially noticeable post-demonetization, which accelerated the adoption of digital payments. This paper emphasized that factors such as speed, improved communication technology, and user-friendliness have driven the popularity of m-commerce. For instance, residents of Sonipat district in Haryana were acknowledged for adopting the highest number of digital payment channels. However, the findings also indicate that perceived risks associated with e-commerce significantly influence consumer attitudes.

Kumar and Rathee (2010) studied the consumption patterns of fast-moving consumer goods (FMCG) in Haryana. Their research evaluated the sources of information influencing consumer choices and also analyzed the influence of gender on buying behavior.

This review of literature establishes a comprehensive understanding of consumer behavior, the factors driving m-commerce adoption, and the evolving role of digitization in rural and urban areas of Haryana.

III. Objectives of the study:

1. To know about the awareness level about m-commerce among rural and urban Haryana.
2. To identify the elements influence of m-commerce in urban and rural Haryana.
3. To identify the issues and challenges faced by the m-commerce consumer.

IV. Research Methodology:

This paper is based on descriptive research. Structured questionnaire was used as a tool of data collection in this quantitative analysis. This study has been conducted in rural and urban part of Haryana state. 180 responses had been collected as per area, that is 90 from urban and 90 from rural. The samples were carefully selected as typical and true representatives of the total population. Purposively, non-probability sampling technique, was used for the study because there is no systematic manner through which the sampling unit can be randomized. 154 respondents submit their responses. Chi-square tests had been used as the statistical tool for analysis in this research.
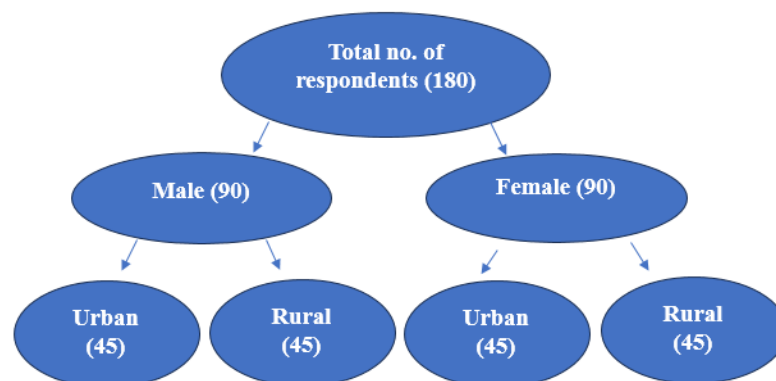
## V. Data presentation & analysis:

Primary data has been collected through questionnaire, total data of 180 respondents has been collected; 90 from males' population and 90 from females' population. Then this category is subdivided into urban and rural that is 45-45. For writing this paper, researcher also focused on the demographics like age group.

Before going to any in-depth analysis, some overall results for among all the respondents; 95% respondents acquire smartphones of their own. 40.9% respondents are those who use their phone 3-6 hours, 22.7% respondents use their phones more than 6 hours, and 36.4% respondents uses their smartphones below than 3 hours. All respondents have heard about the concept of m-commerce somewhere.

59.1% of the respondents quoted *friends/family* as the source of information regarding m-commerce, 36.4% of the respondents choose social media as the source and the 4.5% respondents those responded with *other* as an option, mentioned social media as the reference.

100% of the respondents know about the m-commerce but 27.3% of all use it rarely, with the same percentage of 27.3% respondents use m-commerce service daily be it bill payments, recharges, or online shopping. 31.8% respondents monthly and 13.6% respondents weekly avail m-commerce service. One important finding is that 100% of the respondents are availing m-commerce with smartphones.

Figure 1: Motivation behind the usage of M-Commerce
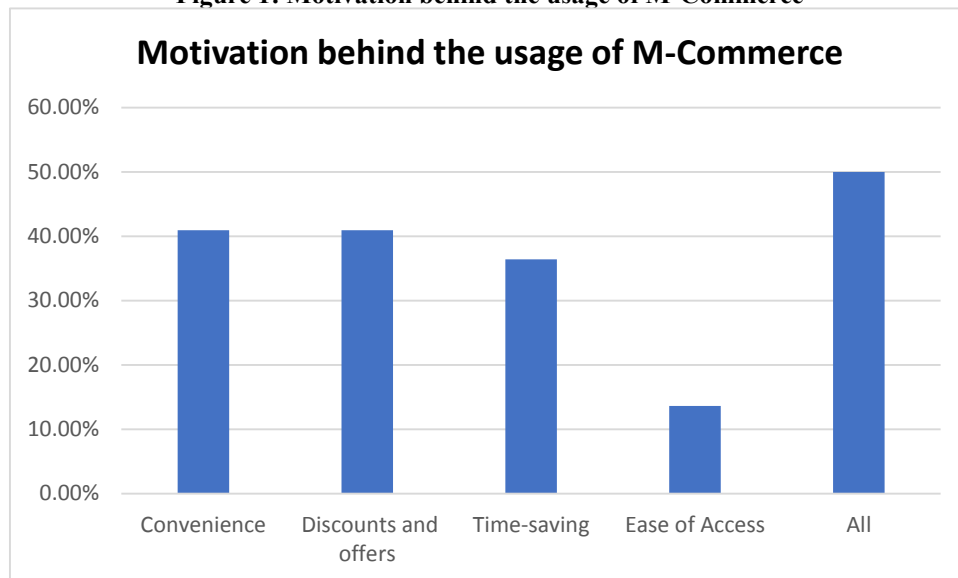
A large portion of respondents that is 40.9% cited convenience and discounts and offers as primary reasons for using M-commerce platforms. This aligns with Benson (2021), who highlighted the growing trend of mobile commerce being driven by its ease of use and attractive promotional strategies by companies. 36.4% of users indicated that time efficiency is a significant factor. This supports the findings of Hathi (2023), who noted that M-commerce reduces transactional time, allowing users to make faster purchases and payments. Only 13.6% of respondents cited ease of access as their motivation, which may indicate that users take mobile access for granted as mobile devices are now commonplace. 50% of respondents mentioned being motivated by all the factors combined, reflecting a holistic appeal of M-commerce platforms. motional incentives. Despite infrastructural challenges, Fernandes and Shailashri (2023) found that the rural population is increasingly motivated by the perceived quality of products and services offered via M-commerce, bridging the digital divide and shifting consumption behavior.

Figure 2: Factors influence the respondents trust in mobile commerce services
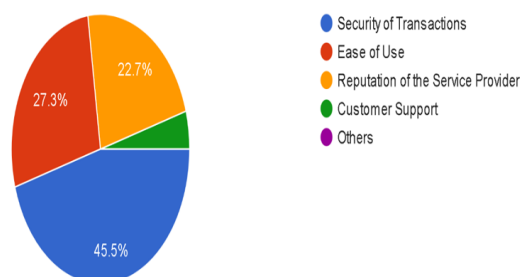
Security emerged as the most influential factor, with nearly half of the respondents (45.5%) citing it as crucial to their trust in M-commerce services. This finding aligns with Benson (2021) and Gupta & Hakhu (2020),

who emphasized that users prioritize safe and reliable digital payment systems. With the rise of cyber frauds, consumers seek platforms with robust encryption and secure transaction protocols. A significant portion of respondents (27.3%) placed importance on how user-friendly the M-commerce platform is. This supports the findings of Hathi (2023), which noted that the accessibility and simplicity of mobile platforms encourage trust, especially among first-time users and less tech-savvy consumers. The reputation of the service provider was cited by 22.7% of respondents as a trust factor. Fernandes and Shailashri (2023) highlighted that well-established service providers with a strong market presence are more likely to gain consumer trust due to brand reliability and consistent service.

Surprisingly, only 4.5% of respondents found customer support to be a critical factor in influencing trust. This could indicate that while customer support is valued, it is not seen as a deal-breaker compared to other factors like security or ease of use. Jaideep & Nimbrain (2023) also noted that customer support is often overlooked unless users encounter major issues.

The findings highlight that security of transactions is the most dominant factor influencing trust, followed by ease of use and the reputation of the service provider. These results suggest that M-commerce platforms must prioritize robust security measures and user-friendly interfaces while leveraging brand reputation to attract and retain users. While less influential, enhancing customer support can still play a complementary role in fostering trust.

Figure 3: Results of Chi-square test

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	34.008[a]	5	.000
Likelihood Ratio	44.643	5	.000
N of Valid Cases	154		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is 3.18.

The Chi-Square test was conducted to examine the association between gender and the type of service most frequently used through mobile commerce.
Value = 34.008, Degrees of Freedom (df) = 5, Asymptotic Significance (p-value) = 0.000
The p-value (0.000) is less than the standard significance level of 0.05, indicating that there is a statistically significant association between gender and the type of service most frequently used through mobile commerce. This suggests that men and women differ significantly in their preferences for the type of services they use in mobile commerce.

Value = 44.643, df = 5, Asymptotic Significance = 0.000
Similar to the Pearson Chi-Square, the likelihood ratio test also confirms the significant association, as the p-value is below 0.05.

The results imply that the choice of services (e.g., online shopping, bill payments, ticket booking) varies significantly between males and females. For example: Men might prefer services like bill payments and ticket booking. Women might lean more towards online shopping or other personalized services. To confirm these trends, it would be helpful to examine the cross-tabulation data or percentages of service usage by gender.

Regarding the third objective of the study, 68.2% respondents shared *Yes* as the response, although 31.8% responded *No,* as they never encountered any challenge with m-commerce. Poor connectivity is the major reason which is voted by the major percentage of responses that is 59.1%, then follows payment failures which is 54.5%, 27.3% respondents said that long delivery times and hidden charges and unexpected costs are issues which are faced by people. 18.2% responded with privacy concerns.

VI.   Conclusion:

The findings highlight the increasing adoption and awareness of m-commerce in both rural and urban Haryana. Factors such as convenience, discounts, time efficiency, and ease of use primarily drive consumer motivation toward m-commerce. Rural users are actively embracing m-commerce, bridging the digital divide. However, trust in m-commerce is strongly influenced by security, ease of use, and service provider reputation.

The study also reveals a statistically significant association between gender and the type of services most frequently used through m-commerce, emphasizing varied preferences. Despite the positive outlook, challenges like poor connectivity, payment failures, and hidden costs remain prevalent, limiting user experience.

To enhance adoption further, m-commerce platforms need to focus on strengthening security measures, simplifying user interfaces, and addressing infrastructural challenges to ensure seamless and reliable services. Addressing these issues will foster trust and broaden the scope of m-commerce adoption, especially in rural areas.

References:

[1]. Benson, K. (2021, February 24). 15 latest M-commerce trends. *TechFunnel*. Retrieved from https://www.techfunnel.com/martech/mobile-commerce-trends/

[2]. Farmanesh P. (2023), The Expansion of E-Commerce and the Influence of Consumer Confidence on the Economy of Iran, International Journal of Science and Management Studies (IJSMS), Volume: 6 Issue: 1, Jan-Feb 2023. DOI: 10.51386/25815946/ijsms-v6i1p127

[3]. Fernandes, D. L., & Shailashri, V. T. (2023). A review on e-commerce and rural consumers: A study on the motivational factors for online shopping among rural youth. *International Journal of Management, Technology, and Social Sciences (IJMTS, 8*(1), 83. Retrieved from https://www.srinivaspublication.com

[4]. Gupta, P., & Hakhu, R. (2020). Customer perception towards cashless transactions: An analysis of specific age group with special reference to Haryana. *Maharishi Markandeshwar Institute of Management, Maharishi Markandeshwar (Deemed to Be) University, Mullana, Ambala, Haryana*. Received April 14, 2020; revised and accepted August 8, 2020.

[5]. Hathi, P. N. (2023). M-Commerce and its impact on today's economy. *Recent Research Reviews Journal*, 2(1), 171–182. https://doi.org/10.36548/rrrj.2023.1.15

[6]. Jaideep, & Nimbrain, N. (2023). Consumers' perception towards e-wallets in Haryana using PLS-SEM approach. *ShodhKosh: Journal of Visual and Performing Arts, 4*(1), 785–790. https://doi.org/10.29121/shodhkosh.v4.i1.2023.2087

[7]. Keelery S, (Aug. 2021), 'Internet usage in India - statistics & facts ', Available from: https://www.statista.com/topics/2157/internetusage-in-India/#topicHeader__wrapper. Cited on: 15-12-2021

[8]. Kumar, N., & Rathee, S. (2010). Recent facets of consumer behaviour in Haryana: A case of rural market. *HSB Research Review, 1*(1), 69.

[9]. Kumar, R. (2024). Customer perception with respect to mobile wallet in rural area of Haryana. *Asian Journal of Management, 15*(2), Article 5. Retrieved from https://ajmjournal.com/HTML_Papers/Asian%20Journal%20of%20Management__PID__2024-15-2-5.html

[10]. Trivedi, H., & Sanchiher, S. (2023). Transition from E-Commerce to M-Commerce: A SWOT Analysis. *International Journal of Science and Management Studies (IJSMS)*, 6(5), 7. https://doi.org/10.51386/25815946/ijsms-v6i5p102

[11]. Wasiq, M., Johri, A., & Singh, P. (2022). Factors affecting adoption and use of M-commerce services among the customers in Saudi Arabia. *Heliyon, 8*(12), e12532. https://doi.org/10.1016/j.heliyon.2022.e12532