



Saarth E-Journal

Saarth

E-Journal of Research

E-mail: sarthejournal@gmail.com

www.sarthejournal.com

ISSN NO: 2395-339X

Peer Reviewed

Vol.10, Issue.3 No.11

Impact Factor: 6.89

Quarterly

July to Sept. - 2025

IMPACT OF MOBILE COMMERCE (M-COMMERCE) ON CONSUMER PURCHASING BEHAVIOUR: AN EMPIRICAL STUDY OF URBAN CONSUMERS IN MUMBAI'S WESTERN SUBURBS

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ABSTRACT

The pervasive diffusion of smartphone technology and high-speed mobile internet has catalyzed a paradigm shift in the domain of retail consumption, culminating in the rapid ascendance of mobile commerce (m-commerce) as a dominant transactional interface.

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The present empirical investigation seeks to critically evaluate the influence of mobile commerce on consumer purchasing behavior within the urban agglomerations of Mumbai's western suburbs. Employing a structured questionnaire, primary data were elicited from a sample of 332 respondents, selected through a non-probability convenience sampling technique. The analytical framework integrates descriptive statistics, chi-square tests of independence, and correlation analysis to examine hypothesized relationships between key constructs such as convenience, promotional stimuli, digital payment facilitation, and consumer decision-making outcomes.

The findings substantiate that mobile commerce exerts a statistically significant influence on purchasing behavior, with convenience and ease of transaction emerging as the most salient determinants. Furthermore, promotional triggers embedded within mobile applications demonstrably intensify impulse buying tendencies. The correlation analysis reveals a strong positive association between perceived convenience and purchase frequency, thereby underscoring the behavioral centrality of usability and accessibility. Notwithstanding these advantages, concerns pertaining to trust and transactional security persist as moderating variables influencing sustained engagement. The study offers substantive managerial implications for digital marketers and platform developers seeking to optimize mobile-driven consumer experiences.

Keywords: Mobile Commerce, Consumer Behavior, Digital Transactions, Impulse Buying, Convenience, Urban Consumers, Statistical Analysis.

1. INTRODUCTION

1.1 Conceptual Foundations of Mobile Commerce

Mobile commerce, frequently abbreviated as m-commerce, constitutes a specialized subset of

electronic commerce that facilitates commercial transactions via wireless handheld devices. Unlike conventional e-commerce platforms that are predominantly accessed through desktop interfaces, m-commerce is characterized by ubiquity, immediacy, and context-sensitive interactions. It encompasses a wide spectrum of activities including mobile banking, digital wallets, ticketing services, and app-based retail transactions. The inherent portability of mobile devices enables consumers to transcend spatial and temporal constraints, thereby redefining the contours of marketplace engagement.

1.2 Consumer Purchasing Behavior in the Digital Epoch

Consumer purchasing behavior encapsulates the cognitive, emotional, and behavioral processes that underpin the selection, acquisition, and post-consumption evaluation of goods and services. In the contemporary digital milieu, these processes have been profoundly reconfigured by technological interventions. The traditional linear decision-making model has evolved into a dynamic, iterative framework wherein information search, evaluation, and purchase execution are seamlessly integrated within mobile ecosystems. Real-time price comparisons, peer reviews, and algorithm-driven recommendations significantly modulate consumer preferences and decision heuristics.

1.3 Proliferation of Mobile Commerce in Urban India

India's urban centers, particularly metropolitan regions such as Mumbai, have witnessed exponential growth in smartphone penetration and mobile internet usage. The confluence of affordable data plans, proliferation of fintech solutions, and the expansion of app-based marketplaces has accelerated the adoption of m-commerce. Urban consumers' exhibit heightened receptivity to digital innovations, rendering them an ideal cohort for examining behavioral transformations induced by mobile commerce.

1.4 Rationale and Significance of the Study

Despite the ubiquity of mobile commerce, there exists a paucity of region-specific empirical studies that rigorously analyze its behavioral implications within the Indian context. The western suburbs of Mumbai, characterized by high population density and digital literacy, present a fertile ground for such investigation. This study endeavors to bridge this lacuna by providing a nuanced understanding of how mobile commerce influences purchasing behavior, thereby offering actionable insights for academia and industry alike.

2. REVIEW OF LITERATURE

An extensive review of extant scholarly contributions reveals a multifaceted exploration of mobile commerce and its behavioral ramifications.

Ettis and Abidine (2019), in their scholarly exposition published by IGI Global, delineate mobile commerce as an integrative platform wherein technological sophistication and user-centric design converge to influence consumer satisfaction. Their analysis underscores that system quality, information relevance, and interface aesthetics collectively shape user engagement and transactional propensity.

Petrov and Zhdanova (2023) advance the discourse by examining the behavioral elasticity induced by mobile accessibility. Their findings suggest that the omnipresence of mobile platforms engenders habitual purchasing patterns, often culminating in impulsive consumption. The study accentuates the role of personalized content and algorithmic targeting in amplifying purchase likelihood.

Mansyur et al. (2018) adopt a theoretical lens, synthesizing the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB) to elucidate determinants of

m-commerce adoption. Their empirical findings corroborate that perceived usefulness and ease of use are pivotal antecedents of behavioral intention, thereby reinforcing the salience of technological affordances.

Acharya and Pednekar (2024) contextualize the phenomenon within the Indian digital economy, positing that digital literacy and technological familiarity significantly mediate m-commerce engagement. Their research indicates that consumers possessing higher levels of digital competence exhibit greater propensity for mobile-based transactions.

Hameed et al. (2010) provide a macro-level perspective, highlighting the strategic imperatives of mobile commerce in fostering innovation and enhancing customer convenience. Their work underscores the transformative potential of mobile platforms in reshaping competitive dynamics within the retail sector.

Research Gap

While the extant literature offers valuable insights, several gaps remain discernible:

- A dearth of geographically localized studies focusing on Mumbai's western suburbs
- Limited integration of multiple behavioral determinants within a unified analytical framework
- Insufficient empirical validation using robust sample sizes and statistical techniques

The present study seeks to address these deficiencies through a comprehensive empirical investigation.

3. OBJECTIVES OF THE STUDY

1. To critically assess the impact of mobile commerce on consumer purchasing behaviour
2. To identify and quantify key determinants influencing mobile-based purchase decisions
3. To evaluate the relationship between perceived convenience and purchasing frequency
4. To examine the influence of mobile promotions on impulse buying tendencies

4. RESEARCH METHODOLOGY

The methodological architecture of the study is designed to ensure analytical rigor and empirical validity.

Parameter	Specification
Research Design	Descriptive and Analytical
Nature of Data	Primary Data
Sample Size	332 Respondents
Sampling Technique	Convenience Sampling
Data Collection Method	Structured Questionnaire
Analytical Tools	Chi-Square Test, Correlation

The questionnaire was meticulously structured to capture demographic variables, mobile usage patterns, and behavioral responses. Likert-scale items were employed to quantify perceptual constructs, thereby facilitating statistical analysis.

6. HYPOTHESIS FORMULATION

Hypothesis 1

H₀: Mobile commerce does not exert a significant influence on consumer purchasing behaviour

H₁: Mobile commerce exerts a significant influence

Hypothesis 2

H₀: Perceived convenience is not significantly associated with purchasing decisions

H₁: Perceived convenience is significantly associated

Hypothesis 3

H₀: Mobile promotions do not significantly affect impulse buying

H₁: Mobile promotions significantly affect impulse buying

7. HYPOTHESIS TESTING AND STATISTICAL INFERENCE

7.1 Chi-Square Test for Hypothesis 1

The chi-square test of independence is employed to ascertain whether a statistically significant association exists between mobile commerce usage and purchasing behaviour.

Statistic	Value
Calculated χ^2 Value	18.45
Degrees of Freedom	4
Critical Value (0.05)	9.49

Inference: Since the computed chi-square statistic exceeds the critical threshold, the null hypothesis is rejected. This indicates a statistically significant association between mobile commerce and purchasing behaviour.

7.2 Correlation Analysis for Hypothesis 2

The Pearson correlation coefficient is utilized to measure the strength and direction of the relationship between perceived convenience and purchasing decisions.

Variables	Correlation Coefficient (r)
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Convenience & Purchase Rate	0.68
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Interpretation: The coefficient of 0.68 denotes a strong positive correlation, implying that increased convenience is associated with higher purchase frequency.

7.3 Chi-Square Test for Hypothesis 3

Statistic	Value
Calculated χ^2 Value	15.72
Critical Value	9.49

Inference: The null hypothesis is rejected, confirming that promotional stimuli significantly influence impulse buying behaviour.

8. FINDINGS

- Mobile commerce significantly influences consumer purchasing behaviour
- Convenience and ease of transaction are dominant determinants
- Promotional strategies substantially enhance impulse buying

- Digital payment systems facilitate higher transaction frequency
- Trust and security concerns persist as moderating factors

9. CONCLUSION

The empirical evidence unequivocally demonstrates that mobile commerce has redefined consumer purchasing paradigms within urban environments. The confluence of technological convenience, instantaneous access, and targeted promotional strategies has engendered a behavioral shift towards increased consumption and impulsivity. While the benefits of m-commerce are manifold, the sustainability of its growth trajectory is contingent upon addressing trust and security concerns. Businesses must therefore adopt a holistic approach encompassing technological innovation, user-centric design, and robust security frameworks to capitalize on the burgeoning potential of mobile commerce.

10. LIMITATIONS OF THE STUDY

1. The geographical scope is confined to Mumbai's western suburbs
2. Non-probability sampling limits external validity
3. Self-reported data may be susceptible to response bias
4. Temporal constraints precluded longitudinal analysis
5. Rapid technological evolution may affect future applicability