

A STUDY ON THE USE OF AI-ENHANCED Q-COMMERCE APPLICATIONS IN EVERYDAY LIFE

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Abstract:

The rapid expansion of quick-commerce (Q-Commerce) applications has transformed everyday purchasing by offering ultra-fast delivery supported by artificial intelligence. These applications increasingly use AI to streamline shopping decisions, enhance efficiency, and influence consumer behaviour. This study examines the use of AI-enhanced quick-commerce applications in everyday life, with a specific focus on their influence on efficiency in meeting daily needs and the role of trust in shaping consumers' intention to continue using such applications. Using a survey-based quantitative approach, primary data were collected from 50 users of quick-commerce platforms and analysed using descriptive statistics, correlation, and regression analysis in Microsoft Excel. The results reveal a strong positive correlation between the use of AI-enhanced applications and efficiency in meeting daily needs, which is further supported by regression analysis indicating high explanatory power. Trust in AI-enhanced applications also shows a significant positive relationship with consumers' intention to continue use, though with comparatively moderate explanatory strength. Overall, the findings confirm that AI-enhanced quick-commerce applications significantly simplify daily purchases, save time, and enhance consumer convenience, while trust emerges as a critical factor influencing continued usage. The study contributes to the growing literature on AI-driven consumer behaviour and highlights important societal implications of technology-enabled consumption in everyday life.

Keywords: *AI-Enhanced Applications, Quick-Commerce, Consumer Trust, Efficiency, Everyday Consumption*

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Introduction:

Advancements in digital technology have led to the emergence of quick-commerce applications that enable consumers to purchase daily essentials and receive them within a short time span. These applications make use of artificial intelligence to personalise product suggestions, remember user preferences, and streamline purchasing processes. As a result, AI-enhanced quick-commerce platforms have become an integral part of everyday life, especially in urban households.

The increasing dependence on such applications reflects a shift in consumer behaviour, where convenience, time-saving, and ease of access are prioritised. While existing studies have explored artificial intelligence in e-commerce and digital

platforms, limited attention has been given to understanding how AI-enhanced quick-commerce applications influence everyday consumption from a societal perspective. This study attempts to address this gap by examining consumer use of AI-enhanced quick-commerce applications in everyday life.

Review of Literature:

- **Tairov, Stefanova, and Aleksandrova (2024)** examine the role of AI-driven marketing strategies in shaping quick commerce service experience (QCSE). Their study shows that personalization has the strongest positive impact on service experience, followed by dynamic pricing, while smart search has a weaker but significant effect. The authors further validate QCSE as a higher-order formative construct and explain AI features as important

signals influencing consumer perceptions of platform quality.

- **Haneefa and Singh (2025)** empirically examine the impact of AI-driven marketing strategies on quick commerce service experience (QCSE) in ultra-fast delivery platforms. Their findings reveal that personalization exerts the strongest positive influence on QCSE, followed by dynamic pricing, while smart search shows a weaker yet significant effect. The study further conceptualizes QCSE as a higher-order formative construct and extends signaling theory by explaining how AI-enabled features shape consumer perceptions of service experience.
- **Ben Saad (2026)** explores the role of anthropomorphic virtual agents (AVAs) in enhancing customer experience within quick commerce platforms. The study highlights that human-like AI agents, characterized by empathy and adaptability, improve customer engagement and personalization in ultra-fast delivery contexts. It further emphasizes the dual role of AVAs in supporting efficient backend operations while addressing sustainability and operational challenges in Q-commerce.

Research Gap:

Although artificial intelligence has been widely studied in the context of e-commerce, there is a lack of focused research on AI-enhanced quick-commerce applications used for meeting everyday needs. Existing studies

predominantly examine organisational benefits, logistics efficiency, or technological aspects, while the everyday experiences of consumers remain underexplored. Additionally, limited survey-based quantitative studies have examined the role of trust and usage behaviour in shaping continued use of such applications. This study seeks to bridge this gap by analysing consumer use of AI-enhanced quick-commerce applications in everyday life.

Objectives of the StudyL:

1. To examine the use of AI-enhanced quick-commerce applications in everyday life.
2. To analyse the influence of these applications on efficiency in meeting daily needs.
3. To study the role of trust in shaping consumers' intention to continue using quick-commerce applications.

Conceptual Research Model:

Figure 1 illustrates the conceptual research model grounded in technology acceptance and consumer trust theory. The model proposes that the use of AI-enhanced quick-commerce applications and trust in such applications jointly influence consumers' efficiency in meeting daily needs. Improved efficiency, reflected through time saving and convenience, subsequently leads to a stronger intention to continue using these applications. The model captures the sequential relationship between technology use, trust, consumer efficiency, and continuance intention in everyday digital consumption.

Figure 1: Conceptual Research Model



Based on the conceptual research model, the following null and alternative hypotheses are formulated:

H0₁: There is no significant relationship between the use of AI-enhanced quick-commerce applications and consumers' efficiency in meeting daily needs.

H1₁: There is a significant relationship between the use of AI-enhanced quick-commerce applications and consumers' efficiency in meeting daily needs.

H0₂: There is no significant relationship between trust in AI-enhanced quick-commerce applications and consumers' intention to continue using these applications.

H1₂: There is a significant relationship between trust in AI-enhanced quick-commerce applications and consumers' intention to continue using these applications.

Research Methodology:

1. Research Design

The study adopts a descriptive and analytical research design using a quantitative approach. The research aims to examine the influence of AI-enhanced quick-commerce application usage on

consumers' efficiency in meeting daily needs and the effect of trust on their intention to continue using such applications.

2. Data Collection Method

Primary data were collected through a structured questionnaire administered using Google Forms. Responses were measured using a five-point Likert scale.

3. Sample Design

The target population for the study comprised users of quick-commerce applications. A total of 50 respondents were selected using the convenience sampling technique, considering accessibility and willingness to participate. The study was limited to urban consumers, where the adoption and usage of quick-commerce applications are relatively high.

4. Tools for Data Analysis

Data were analysed using Microsoft Excel Data Analysis ToolPak. The following tools were used: Descriptive statistics (Mean, Standard Deviation), Correlation analysis and Simple regression analysis.

Data Analysis & Interpretations :

Table 1: Descriptive Statistics

| Variable | Mean | Standard Deviation |
|--|------|--------------------|
| Use of AI-Enhanced Quick-Commerce Applications | 3.78 | 0.85 |
| Efficiency in Meeting Daily Needs | 3.89 | 0.87 |
| Trust in Applications | 3.71 | 0.68 |
| Intention to Continue Use | 3.62 | 0.97 |

Table 1 presents the descriptive statistics of the study variables. The mean values indicate that respondents generally agree with the use and effectiveness of AI-enhanced quick-commerce applications. The standard deviation values suggest moderate consistency in responses.

Table 2: Correlation

| Variable | Use | Efficiency | Trust | Intention |
|------------|---------|------------|---------|-----------|
| Use | 1 | 0.958** | – | – |
| Efficiency | 0.958** | 1 | – | – |
| Trust | – | – | 1 | 0.596** |
| Intention | – | – | 0.596** | 1 |

Table 2 shows a strong positive correlation between the use of AI-enhanced applications and efficiency in meeting daily needs. Trust also exhibits a moderate positive relationship with intention to continue use.

Table 3: Regression Analysis (Hypothesis 1)

| Variable | β | t-value | p-value |
|---------------------------------|---------|---------|---------|
| Use of AI-Enhanced Applications | 0.973 | 24.267 | 0.001 |
| R ² | 0.920 | | |
| F-value | 588.88 | | |

Table 3: The regression results indicate that the use of AI-enhanced quick-commerce applications has a significant positive influence on consumers' efficiency in meeting daily needs ($\beta = 0.973$, $p < 0.05$). Hence, the null hypothesis is rejected.

Table 4: Regression Analysis (Hypothesis 2)

| Variable | β | t-value | p-value |
|-----------------------|---------|---------|-------------|
| Trust in Applications | 0.844 | 5.294 | 0.000002556 |
| R ² | 0.355 | | |
| F-value | 28.02 | | |

Table 4: The results show that trust in AI-enhanced quick-commerce applications significantly affects consumers' intention to continue using these applications ($\beta = 0.844$, $p < 0.05$). Therefore, the null hypothesis is rejected.

Findings:

The empirical results indicate that respondents exhibit a generally positive perception of AI-enhanced quick-commerce applications, particularly with respect to efficiency in meeting daily needs. Correlation analysis reveals a strong and positive association between application usage and consumer efficiency, which is further substantiated by regression results demonstrating high explanatory power. Additionally, trust in AI-enhanced applications shows a statistically

significant positive relationship with consumers' intention to continue using such platforms, although the strength of this relationship is moderate, suggesting the presence of additional influencing factors.

Conclusion:

This study provides empirical evidence that AI-enhanced quick-commerce applications significantly enhance consumer efficiency in everyday purchasing activities, while trust plays a crucial role in shaping continuance intention. By integrating technology

acceptance and consumer trust perspectives, the findings contribute to the growing body of literature on AI-driven commerce and consumer behaviour. The study underscores the importance of efficient, reliable, and trustworthy AI-enabled features in quick-commerce platforms and offers a foundation for future research examining broader behavioural and contextual determinants of continued usage.

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