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# E-COMMERCE ADOPTION IN TRADITIONAL STORES

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**Abstract:** The rapid growth of online shopping has significantly transformed the retail sector. As a result, traditional brick-and-mortar stores are increasingly encouraged to adopt digital strategies in order to remain competitive and relevant in the market.

This trend is particularly important in developing economies such as Uzbekistan, where small and medium-sized enterprises (SMEs) face growing pressure to modernize their operations and expand their market reach. Therefore, this study aims to examine the key factors, challenges, and effects associated with the integration of e-commerce into traditional retail, with a particular focus on the influence of digital platforms such as Uzum Market, ZoodMall, and OLX.

The study is based on established theoretical frameworks, including the Technology Acceptance Model and the Diffusion of Innovation, which help explain the factors influencing technology adoption. A mixed-methods approach is employed, combining quantitative survey data collected from owners and managers of traditional retail businesses with qualitative insights obtained through case studies and interviews.

The research examines key organizational determinants such as business readiness, perceived benefits, competitive pressure, and customer preferences, while also evaluating their relationship with e-commerce adoption and overall business performance.

The expected findings suggest a positive relationship between e-commerce integration and improvements in sales performance, operational efficiency, and customer outreach. At the same time, several barriers remain, including limited digital skills, financial limitations, infrastructural challenges, and resistance to organizational change. In addition, the study highlights the increasing importance of digital ecosystems, particularly the role of Uzum, in improving access to online marketplaces and accelerating digital transformation among SMEs.

**Key words:** Uzbekistan, small and medium-sized enterprises (SMEs), e-commerce adoption, digital transformation, retail sector, Uzum Market, technology adoption.

## INTRODUCTION

The rapid growth of online shopping has fundamentally transformed the retail industry, contributing to the decline of purely physical stores and the rise of businesses operating primarily through digital channels.

This transformation is particularly evident in developing countries, where increasing internet access and changing consumer behavior have created new opportunities for small and medium-sized enterprises (SMEs) to reach customers beyond their local markets. Uzbekistan, in particular, has experienced significant growth in its e-commerce sector in recent years, reflecting the global transition toward digital platforms.

According to KPMG (2023), Uzbekistan's e-commerce market reached approximately \$311 million in 2022, representing a fivefold increase over the previous five years. Forecasts suggest that the market could expand to nearly \$2.2 billion by 2027, supported by a compound annual growth rate (CAGR) of 41–47%. This rapid expansion not only demonstrates the growing strength of the market but also reveals substantial untapped potential within the retail sector. The accelerated growth emphasizes the increasing importance of digital channels for companies seeking to remain competitive and sustain long-term development.

Despite these positive trends, the integration of e-commerce into traditional retail remains uneven. Although digital platforms such as Uzum Market, ZoodMall, and OLX provide accessible entry points into online commerce, many SMEs continue to face structural and organizational challenges. These challenges include limited digital skills, financial constraints, underdeveloped logistics systems, and resistance to organizational change, which are common issues in developing economies. As a result, a gap remains between the rapid

growth of the e-commerce sector and the actual readiness of traditional businesses to adopt digital solutions comprehensively.

From an analytical perspective, the coexistence of strong market growth and limited business readiness creates a significant contradiction. On the one hand, indicators such as a high CAGR and increasing transaction volumes point to favorable external conditions for e-commerce development. On the other hand, internal organizational barriers prevent many enterprises from fully benefiting from these opportunities. This discrepancy highlights the need to examine the determinants of e-commerce adoption among businesses, particularly SMEs operating in transitional economies.

Furthermore, the global success of platforms such as Amazon demonstrates how integrated digital ecosystems can substantially improve business scalability and market access. According to company reports, Amazon generated revenues of approximately \$638 billion in 2024 and \$716.9 billion in 2025, reflecting stable growth and expanding market influence. These figures illustrate the potential benefits of e-commerce for traditional retail businesses, especially in developing economies such as Uzbekistan.

Similarly, Alibaba Group represents one of the world's leading platform-based e-commerce ecosystems, generating more than \$130 billion in annual revenue while operating major digital marketplaces such as Taobao and Tmall. Unlike traditional retailers, Alibaba's model focuses on connecting businesses and consumers rather than directly selling products. This approach lowers market entry barriers for SMEs and facilitates scalable digital transformation. Moreover, the company's integrated ecosystem, which includes e-commerce, logistics, cloud computing, and financial services, demonstrates the growing role of technological innovation in maintaining competitive advantage.

Recent data from online marketplaces also indicate the rapid development of the e-commerce sector in Uzbekistan. For example, ZoodMall currently offers more than 6–7 million products, works with approximately 30,000 sellers, and serves over 7 million users. In parallel, transaction volumes and revenues have continued to grow significantly. These developments reflect the increasing participation of both consumers and businesses in online shopping. In addition, the expansion of financial technologies, particularly Buy Now, Pay Later (BNPL) services, has attracted more than \$100 million in investment, simplifying purchasing processes and stimulating consumer demand.

At the same time, the emergence of integrated ecosystems such as Uzum demonstrates how the combination of e-commerce, fintech, and logistics services can accelerate digital transformation. Nevertheless, traditional retailers continue to adopt e-commerce at varying speeds, which indicates the need for further research into the factors influencing this process.

E-commerce platforms also differ significantly in terms of their capabilities and level of integration. For example, OLX provides a simple entry point for individuals and small businesses through its classified advertising model. In 2025, OLX Group reported revenues of approximately \$777 million, representing an 18% increase compared to the previous year. The platform also recorded around 29 million monthly app users and nearly 64 million active listings per day.

Although OLX is a large and widely used platform, its asset-light business model, which does not include integrated logistics or payment systems, limits its long-term growth potential. In contrast, platforms such as Amazon and Alibaba offer more comprehensive ecosystems, including logistics, payment processing, and data analytics services. This distinction suggests that while classified platforms facilitate initial digital engagement, more advanced marketplaces are essential for ensuring sustainable e-commerce integration and long-term business growth.

## LITERATURE REVIEW

The integration of e-commerce into traditional retail has become an important area of academic research, particularly in relation to information technology adoption and digital transformation. Previous studies show that although e-commerce has strong potential to improve business performance, its adoption among small and medium-sized enterprises (SMEs) remains influenced by a variety of technological, organizational, and environmental factors.

One of the most widely used theories for explaining technology adoption is the Technology Acceptance Model. Developed by Fred Davis in 1989, the model suggests that the main determinants of technology adoption are perceived usefulness and perceived ease of use. According to Davis, perceived usefulness refers to the degree to which an organization believes that a system can improve its operational performance, while perceived ease of use relates to the amount of effort required to implement and operate the system. These factors are especially important in the context of e-commerce, as they directly influence the strategic decisions of traditional retailers considering the adoption of online platforms.

Another important theoretical perspective is the Diffusion of Innovation theory proposed by Everett Rogers. This theory explains how new technologies spread over time among different groups within society and organizations. Rogers identifies several adopter categories, including innovators, early adopters, early majority, late majority, and laggards. This framework is particularly useful for understanding why some retail businesses adopt e-commerce rapidly, while others are more cautious or resistant to change.

At the organizational level, e-commerce adoption can also be analyzed using the Technology-Organization-Environment Framework. Introduced by John Tornatzky and Mitchell Fleischer, this framework emphasizes that technology adoption depends on three groups of factors: technological readiness, organizational readiness, and environmental conditions. Technological readiness includes access to digital infrastructure and technological resources; organizational readiness involves management support, financial capacity, and employee skills; and environmental conditions include market competition, customer demand, and industry trends.

A number of studies show that the adoption of e-commerce can significantly improve SME performance. Research by Kenneth Kraemer and colleagues demonstrates that e-commerce enables businesses to expand their market reach, improve operational efficiency, and strengthen competitiveness in both local and international markets. Digital platforms are particularly valuable for SMEs in developing countries, as they allow firms to reach customers beyond their immediate geographic location.

Despite these benefits, the adoption of e-commerce often faces several barriers. Studies by Alemayehu Molla and Paul Licker indicate that SMEs frequently encounter challenges such as limited financial resources, insufficient technical expertise, and underdeveloped digital infrastructure. In addition, organizational resistance to change can slow down the adoption process, especially in traditional retail businesses with established routines and business practices.

The challenges of e-commerce adoption are particularly evident in developing economies. According to the United Nations Conference on Trade and Development Digital Economy Report (2021), factors such as weak internet infrastructure, regulatory limitations, and unequal digital skills significantly affect the use of digital technologies by businesses. However, these markets also present considerable opportunities for growth due to increasing internet penetration and growing consumer demand for online services.

Overall, the existing literature suggests that e-commerce adoption is a complex process influenced by a combination of technological, organizational, and environmental factors. Theoretical frameworks such as the Technology Acceptance Model, Diffusion of Innovation theory, and the Technology-Organization-Environment framework provide useful tools for understanding these adoption processes. Nevertheless, the specific interaction of these factors within developing economies still requires more context-based research.

In the case of Uzbekistan, current academic literature on e-commerce adoption remains limited, particularly regarding the role of local digital platforms in helping traditional retailers adapt to changing market conditions. This study therefore seeks to address this research gap by providing empirical evidence on the process of e-commerce adoption in the Uzbek retail sector.

## RESEARCH METHODOLOGY

This study employs a mixed-methods approach to examine the integration of e-commerce into traditional retail businesses in Uzbekistan. Following the methodological framework proposed by John Creswell (2014), the research combines statistical data with platform-specific information in order to evaluate the influence of digital marketplaces on business development.

The study is based on secondary data collected from official reports, press releases, and analytical publications related to major e-commerce platforms operating in Uzbekistan, particularly Uzum Market, ZoodMall, and OLX. These platforms represent different models of online commerce, including marketplace-based retail, cross-border e-commerce, and classified advertising platforms.

Particular attention is given to Uzum Market, which is currently one of the leading national e-commerce platforms. According to official company information, the broader Uzum ecosystem serves more than 20 million users, reflecting strong consumer adoption across the country. In addition, the platform includes over 17,000 sellers, indicating significant participation by SMEs. The rapid growth of Uzum demonstrates its important role in supporting digital transformation among traditional businesses.

Additional indicators further confirm the platform's expansion and strong market position. Uzum Market accounts for a substantial share of the national e-commerce sector and is recognized as one of the leading domestic platforms. Moreover, its ability to process more than one million orders within a single month reflects high consumer engagement and strong operational capacity.

To provide a comparative perspective, the study also examines alternative e-commerce models represented by ZoodMall and OLX. ZoodMall operates primarily as a cross-border marketplace, while OLX functions mainly as a consumer-to-consumer (C2C) platform. Although detailed statistical information on these platforms within

Uzbekistan is limited, their inclusion allows for a comparison of different digital business models and their adoption patterns.

The study investigates the relationship between several key factors affecting e-commerce adoption, including digital readiness, perceived usefulness, competitive pressure, and customer demand. These factors are analyzed in relation to adoption outcomes such as platform participation, sales growth, and customer acquisition. By applying descriptive and comparative analytical methods, the research provides a systematic assessment of e-commerce adoption trends within the Uzbek retail sector.

## RESULTS AND DISCUSSION

The findings of this study provide strong evidence that the integration of e-commerce platforms significantly improves the operational efficiency and market position of traditional retail businesses in Uzbekistan. By combining quantitative platform data with broader market indicators, the research highlights both the opportunities and the limitations associated with digital transformation in the retail sector.

**Market Growth and Structural Transformation.** The results confirm the rapid expansion of Uzbekistan's e-commerce sector. The market is projected to grow from approximately \$311 million in 2022 to nearly \$2.2 billion by 2027, making Uzbekistan one of the fastest-growing e-commerce markets globally. This growth is driven by increasing internet penetration, wider smartphone usage, and growing consumer trust in online transactions.

The popularity of online shopping indicates a long-term shift in consumer behavior, moving away from traditional face-to-face retail and toward digital purchasing channels. According to the Diffusion of Innovation theory, the increasing number of early adopters of online shopping can accelerate the broader transition to digital retail.

The analysis also shows that consumer behavior strongly influences the adoption of e-commerce. A large share of transactions is conducted through mobile devices, highlighting the growing importance of mobile commerce in Uzbekistan. In addition, demand is concentrated mainly in standardized product categories such as electronics, clothing, and household goods, which are easier to compare and purchase online.

These findings indicate that product characteristics, digital accessibility, and convenience play an important role in shaping the pace and direction of e-commerce adoption.

**Platform Performance and Ecosystem Development.** Recent figures demonstrate the strong expansion of Uzbekistan's digital commerce ecosystem. The e-commerce segment of Uzum alone generated a gross merchandise value (GMV) of more than \$500 million. At the same time, the total payment volume across the ecosystem exceeded \$11.1 billion, indicating rapid growth in both retail and financial activity.

Financial performance indicators further demonstrate the scalability of the platform. In 2025, Uzum generated approximately \$691 million in revenue and \$176 million in net profit. The ecosystem attracted more than 20 million users and maintained over 4.6 million active annual customers, showing a high level of consumer engagement and market penetration.

The number of sellers on the platform exceeded 17,000, illustrating the growing participation of SMEs in digital marketplaces. In addition, fintech services played a major role in the platform's expansion. Lending and Buy Now, Pay Later (BNPL) services generated approximately \$1.2 billion in transaction volume, supported by the issuance of more than 4 million payment cards.

From an operational perspective, the development of logistics infrastructure has also contributed significantly to platform growth. The establishment of more than 1,500 pickup points across over 450 locations has improved delivery speed, accessibility, and nationwide service coverage.

**Comparative Platform Analysis.** Although the integrated model of Uzum demonstrates strong performance, other platforms show different patterns of adoption.

ZoodMall mainly operates as a cross-border marketplace and provides access to a wide variety of international products. However, its reliance on external logistics providers may reduce delivery efficiency and limit operational control.

In contrast, OLX operates primarily as a consumer-to-consumer (C2C) platform with minimal infrastructure requirements. While this model lowers barriers to entry, the absence of integrated payment and logistics systems reduces its long-term scalability for business users.

These differences suggest that the structure of a platform has a direct impact on the sustainability and effectiveness of e-commerce adoption among SMEs.

The findings indicate that successful e-commerce adoption in Uzbekistan is closely linked to the development of integrated digital ecosystems. The combination of marketplace services, fintech solutions, and logistics infrastructure enables platforms such as Uzum to reduce barriers for SMEs and accelerate digital transformation.

Moreover, the strong growth in payment volume and lending activity suggests that fintech integration is a key factor in stimulating consumer demand and increasing transaction frequency. This implies that the expansion of e-commerce in developing economies depends not only on technology but also on access to digital financial services.

The results support the Technology Acceptance Model and the Technology-Organization-Environment Framework. Both theories emphasize that perceived usefulness, organizational readiness, and external environmental factors are essential for successful technology adoption.

The improvement of logistics infrastructure also highlights the importance of operational capacity in ensuring effective e-commerce implementation. Faster delivery times and wider geographic coverage contribute to higher customer satisfaction and stronger repurchase behavior, both of which are critical for the long-term sustainability of digital platforms.

Overall, the findings reveal a significant gap between the rapid growth of the e-commerce market and the readiness of traditional businesses to integrate digital technologies fully. Although strong external factors continue to drive market growth, internal organizational limitations still restrict broader adoption.

Therefore, the development of e-commerce in Uzbekistan should be viewed not only as a technological transition but also as a broader structural transformation requiring improvements in digital literacy, infrastructure, and access to financial services.

## CONCLUSION AND RECOMMENDATIONS

This study examined the integration of e-commerce into traditional retail businesses in Uzbekistan and identified the main factors influencing this process. The findings demonstrate that the adoption of digital platforms significantly improves business performance, particularly in terms of market expansion, operational efficiency, and customer engagement.

The results also emphasize the important role of platform-based ecosystems such as Uzum in accelerating digital transformation through the combination of e-commerce services, financial technologies, and logistics infrastructure. At the same time, the research reveals a noticeable gap between the rapid growth of the e-commerce market and the ability of SMEs to adopt digital technologies effectively.

The study concludes that the development of e-commerce in Uzbekistan is not simply a technological change but a broader structural transformation requiring improvements in digital literacy, infrastructure, and financial inclusion.

To encourage wider e-commerce adoption among SMEs in Uzbekistan, several practical measures should be considered:

- The government should continue improving digital infrastructure and expanding access to high-speed internet, particularly in rural and remote areas.
- Specialized educational and training programs should be developed to strengthen the digital and managerial skills of small business owners.
- Financial institutions and fintech companies should further expand accessible payment solutions, including installment-based services and Buy Now, Pay Later (BNPL) options, in order to stimulate consumer spending.
- Platform providers should continue investing in logistics networks to ensure faster, more reliable, and more affordable delivery services across the country.
- Additional support mechanisms, such as tax incentives, grants, and subsidized digitalization programs, could help SMEs adopt e-commerce solutions more quickly and effectively.
- Greater cooperation between government institutions, private businesses, and digital platforms would also contribute to the creation of a stronger and more sustainable e-commerce ecosystem in Uzbekistan.

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