



INNOVATION ACTIVITY OF SMALL SERVICE ENTERPRISES IN SAMARKAND, UZBEKISTAN: BARRIERS AND DIGITAL ADOPTION PATTERNS

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Abstract. *This study examines the innovation activity of small service enterprises in Samarkand, Uzbekistan, with a focus on digital adoption patterns and barriers to innovation. Despite national policies promoting digital transformation, the extent and nature of innovation at the micro-level remain underexplored. A survey of 15 small enterprises (cafés, beauty salons, photo studios, and IT service providers) was conducted in April 2025. Results indicate high adoption of marketing (93% use social media) and organizational innovations (87% use mobile payments), while product and technological innovations remain limited (only 33% introduced new services). The main barriers identified are financial constraints (67% of respondents), lack of digital skills (53%), and fear of implementation complexity (33%). The findings suggest that while low-cost digital tools are widely adopted, deeper technological integration requires targeted state support, including digital literacy programs and partial software subsidies. This research contributes to the growing literature on innovation in emerging economies and provides practical insights for policymakers in Central Asia.*

Keywords: *innovation, SMEs, digitalization, service sector, Uzbekistan, Samarkand, barriers to innovation*

Introduction

Uzbekistan has undergone significant economic reforms since 2017, with a strong emphasis on supporting small and medium-sized enterprises (SMEs) as

engines of growth and employment (World Bank, 2023). The government's "Concept for the Development of Innovation Activity in the Republic of Uzbekistan for 2020–2025" (Cabinet of Ministers, 2020) explicitly prioritizes digital transformation across all sectors, particularly in services—a key segment in historic cities like Samarkand, which attracts over 2 million tourists annually (State Committee on Tourism, 2024).

However, while macro-level policies are well-documented, empirical evidence on micro-level innovation behavior—especially in non-metropolitan regions—remains scarce. Most studies focus on Tashkent or large industrial firms (Holmirzaev, 2023), leaving a gap in understanding how small service businesses in secondary cities adopt and adapt innovations.

This study addresses this gap by answering two research questions:

(1) What types of innovations are most commonly adopted by small service enterprises in Samarkand?

(2) What are the primary barriers limiting deeper innovation engagement?

The findings are relevant not only for Uzbekistan but also for other emerging economies undergoing digital transition with resource-constrained SMEs.

Methods

A mixed-methods approach was employed, combining quantitative survey data with qualitative insights.

Sampling: A purposive sample of 15 small enterprises in Samarkand was selected in April 2025. Inclusion criteria: (a) fewer than 50 employees, (b) operating in the service sector, (c) active for at least 2 years.

Data collection: A structured questionnaire was administered in person or via phone. The instrument included:

- Demographic and business characteristics,
- Adoption of four innovation types (based on Oslo Manual, OECD, 2018): product, process, marketing, organizational,

- Perceived barriers (5-point Likert scale + open-ended questions).

Analysis: Descriptive statistics (frequencies, percentages) were used to summarize adoption rates. Thematic analysis was applied to open-ended responses.

Ethical considerations: Participation was voluntary, and anonymity was guaranteed.

Results

Sample profile: Respondents represented cafés (n=5), beauty salons (n=4), photo studios (n=3), and IT service providers (n=3). All had been operating for 2–8 years.

Innovation adoption(Table 1):

Innovation Type	Adopted by	%
Marketing (social media, online ads)	14	93%
Organizational (mobile payments, online booking)	13	87%
Process (digital accounting, CRM)	11	73%
Product (new services)	5	33%

Barriers to innovation:

- Financial constraints: 10 respondents (67%)
- Lack of digital skills: 8 respondents (53%)
- Fear of complexity/risk: 5 respondents (33%)

Qualitative responses highlighted that while “Instagram and Payme are easy and free,” tools like CRM or inventory software are “too expensive and complicated without training.”

Discussion

The findings reveal a clear pattern: "low-threshold, low-cost innovations dominate", while "high-value technological innovations lag". This aligns with the “innovation paradox” observed in other emerging economies—SMEs adopt visible, simple tools but avoid complex digital investments (OECD, 2021).

The high use of social media and mobile payments reflects the “mobile-first” reality of Uzbekistan, where smartphone penetration exceeds 80% (Statista, 2024). However, the low rate of product innovation (33%) suggests limited capacity for service differentiation—a risk in a competitive tourism-driven market like Samarkand.

The identified barriers—finance, skills, and risk perception—are consistent with global SME literature (Audretsch et al., 2022). Yet, unlike in Western contexts, **digital literacy** emerges as a more critical bottleneck than access to capital, underscoring the need for localized capacity-building.

Policy implications:

- Expand free digital literacy programs via local business support centers,
- Partner with fintech companies to offer subsidized SaaS solutions for SMEs,
- Promote “light” innovation models (e.g., template-based CRM) tailored to non-tech entrepreneurs.

Limitations: Small sample size and geographic focus limit generalizability. Future research should include larger surveys across Uzbekistan’s regions.

Conclusion

This study demonstrates that small service enterprises in Samarkand are actively engaging in marketing and organizational innovations but face significant barriers to deeper technological and product innovation. The results highlight the

importance of non-financial support—particularly digital skills training—in enabling inclusive digital transformation. For policymakers, the key takeaway is that ****access to technology is not enough; usability and confidence matter equally****. This research contributes empirical evidence from a Central Asian context and offers a replicable framework for studying SME innovation in similar emerging economies.

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