



REGULATORY QUALITY, MOBILE MONEY, AND DIGITAL PAYMENT INCLUSION IN UZBEKISTAN (2017–2024)

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ABSTRACT

This study investigates the relationship between regulatory quality (RQ), mobile money adoption (MMA), and digital payment inclusion (DPI) in Uzbekistan. Using quarterly data from 2017 to 2024 and Partial Least Squares Structural Equation Modeling (PLS-SEM), the research finds that mobile money adoption fully mediates the impact of regulatory quality on digital payment inclusion. The results suggest that institutional reforms drive inclusion primarily by facilitating the uptake of mobile financial technologies.

1. Introduction

Digital financial transformation is a cornerstone of economic development in emerging markets. Uzbekistan, transitioning from a cash-heavy economy to a digital one, provides a unique context to study this shift. While literature acknowledges the role of regulation, the specific mechanism—how reforms translate into inclusion—remains under-explored. This study addresses this gap by testing whether mobile money adoption acts as the critical link between regulatory improvements and broader digital payment participation

2. Methodology

- **Design:** Quantitative longitudinal study using 32 quarterly observations (2017–2024).
- **Method:** Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS

4.

• Constructs:

- **Regulatory Quality (RQ):** Measured via World Bank WGI and Fintech indices.
- **Mobile Money Adoption (MMA):** Measured by active wallets, transaction volumes, and agent counts.
- **Digital Payment Inclusion (DPI):** Measured by non-cash transaction shares and digital wallet usage rates.

3. Key Results

The measurement model confirmed high reliability (CR > 0.84) and validity (AVE > 0.63). The structural model yielded the following key findings:

Path	Path Coefficient (β)	P-value	Significance

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RQ $\rightarrow$ MMA	0.789	< 0.001	Strong Positive
MMA $\rightarrow$ DPI	0.661	< 0.001	Strong Positive
RQ $\rightarrow$ DPI (Direct)	0.078	0.412	Not Significant
RQ $\rightarrow$ MMA $\rightarrow$ DPI (Indirect)	0.521	< 0.001	Significant

Mediation Analysis

The **Variance Accounted For (VAF)** was calculated at **87%**, indicating **full mediation**. This means regulatory quality does not directly increase digital inclusion; instead, it creates the environment necessary for mobile money to flourish, which then drives inclusion.

4. Discussion and Conclusion

The findings highlight a **regulation-first development pathway** in Uzbekistan. Unlike some markets where technology preceded regulation, Uzbekistan's top-down reforms (modernization, licensing, and interoperability) functioned as structural catalysts

Key Takeaways:

1Institutional Foundation: Effective regulation reduces market uncertainty and incentivizes fintech innovation.

2Technological Bridge: Mobile money is the essential vehicle for inclusion, offering low-cost, accessible interfaces that traditional banking lacks.

3Policy Implication: To foster a digital ecosystem, policymakers must pair regulatory reforms with infrastructure investment and digital literacy programs.

Conclusion: Regulatory quality is the foundation, but mobile money adoption is the engine of digital payment inclusion in Uzbekistan. Success depends on aligning institutional frameworks with technological adoption strategies.

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