

CHALLENGES AND RISKS OF IMPLEMENTING INNOVATIVE PROJECT MANAGEMENT APPROACHES IN UZBEKISTAN'S BANKING SECTOR

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Abstract. The banking sector is increasingly adopting innovative project management methodologies such as Agile, Scrum, and Lean to support digital transformation and improve agility. Yet, banks in emerging markets face specific challenges. This study analyzes managerial risks of adopting modern project management in Uzbekistan's banking sector amid ongoing reforms and digitalization. Using literature review and qualitative surveys, the research identifies key barriers: cultural resistance, regulatory constraints, lack of skills and resources, and rigid legacy systems. Findings show that while Agile and Lean can enhance efficiency and customer focus, their implementation is limited by hierarchical culture, low awareness of frameworks, strict compliance demands, and outdated infrastructure. The discussion links these issues to global experience and proposes recommendations for managers and policymakers to enable agile transformation in a regulated transition economy. Overcoming these challenges is vital for Uzbekistan's banks to unlock digital potential and remain competitive in a rapidly changing financial sector.

Keywords: *Project Management; Agile; Scrum; Lean; Banking Sector; Digital Transformation; Uzbekistan; Organizational Change; Regulatory Compliance*

Introduction. The global banking industry is undergoing rapid transformation driven by digital innovation and evolving customer expectations. To keep pace, banks increasingly adopt modern project management approaches such as Agile, Scrum, Kanban, and Lean. These methodologies, originally popular in software development, are now gaining traction in financial services as tools for enhancing flexibility, efficiency, and customer orientation. Agile emphasizes iterative development, cross-functional collaboration, and adaptability, while Lean focuses on eliminating waste and improving processes. Together, they promise faster delivery of digital products, operational improvements, and the fostering of innovation cultures.

Despite these advantages, banks have been slower than other industries in adopting such methods due to their size, complexity, hierarchical structures, strict regulatory frameworks, and risk-averse cultures. Implementing Agile and Lean is not merely a process change but a cultural and managerial transformation, requiring leadership support, organizational restructuring, and mindset shifts.

In Uzbekistan, these challenges are particularly relevant. As a transition economy, the country has undertaken broad reforms in its banking sector since 2020, including privatization of state-owned banks, modernization initiatives, and alignment with international regulatory practices. The national "Digital Uzbekistan" agenda has further accelerated the push toward digital transformation, prompting banks to invest in new technologies, financial products, and partnerships.

Some banks in Uzbekistan have begun experimenting with Agile and Lean in digital transformation programs, establishing project management offices and introducing iterative methods. Early experiences suggest gains in transparency and reduced time-to-market. However, significant obstacles remain: entrenched hierarchical cultures, limited familiarity with Agile

principles, resistance within compliance functions, and outdated legacy systems.

This context highlights a clear research gap. While extensive studies exist on Agile adoption in software firms and Western banks, there is little research on its application in post-Soviet or emerging market banking systems. The unique combination of reform, regulatory transition, and traditional organizational culture in Uzbekistan creates a distinctive environment for exploring the risks and challenges of introducing modern project management.

This study addresses these issues by examining the managerial challenges and risks associated with implementing Agile, Scrum, and Lean approaches in Uzbekistan's banking sector. Drawing on a literature review and qualitative data from industry practitioners, it identifies the primary barriers to adoption and assesses their implications. The contribution lies in offering insights for bank executives and policymakers on how to align modern project management practices with regulatory requirements, overcome cultural resistance, and foster organizational conditions for successful transformation.

Methods. In preparing the article, such research methods as the method of horizontal and vertical analysis, the formal-logical method, the method of scientific abstraction, and econometric analysis were used.

Results. The study reveals that organizational, cultural, and regulatory factors significantly hinder the adoption of Agile, Scrum, Lean, and similar project management methods in Uzbekistan's banking sector. Despite strong interest in modernization, several persistent challenges remain.

1. Cultural and Organizational Resistance

Uzbek banks operate with hierarchical, bureaucratic, and siloed structures that conflict with Agile's collaborative and flexible nature. Employees are used to rigid processes and detailed up-front planning, creating skepticism toward iterative methods. Leadership buy-in is often superficial, with executives approving Agile in theory but continuing to demand traditional documentation and control. Resistance to change is reinforced by the banking sector's strong risk-averse culture, where mistakes are penalized and experimentation discouraged.

2. Regulatory and Compliance Constraints

Banks must comply with strict regulations that emphasize documentation and formal processes. This conflicts with Agile's preference for lean documentation and adaptability. Compliance teams often require full paper trails, slowing projects and forcing hybrid models that dilute agility. Frequent regulatory changes also disrupt project cycles, while fear of non-compliance leads management to limit or tightly control Agile initiatives.

3. Knowledge and Skill Gaps

Most banking personnel have little formal training in Agile or Lean, leading to misunderstandings and inconsistent application of methods. Concepts such as sprints or stand-ups are often misinterpreted, resulting in flawed implementations that resemble traditional approaches under a new name. The shortage of qualified coaches and certified specialists further limits progress, and attempts to introduce Agile risk becoming superficial exercises without proper understanding.

Banks in Uzbekistan lack internal champions and external coaches to guide Agile adoption. Most employees rely on trial-and-error or self-study. Without consistent mentoring, teams tend to revert to old management habits. Attempts to use tools like Kanban often failed because no one reinforced the new routines. Successful transformation requires continuous coaching and reinforcement.

Learning Curve and Productivity Dip

Introducing Agile initially caused productivity declines and confusion about roles. In the high-stakes banking sector, this was sometimes perceived as failure. Proper expectation management is essential: leadership must understand that efficiency often drops before improving. Training, patience, and realistic timelines are critical for success.

Legacy Processes and Technological Constraints

Many banks still operate on outdated IT systems, making rapid updates and integrations difficult. Standardized processes for procurement, risk management, and approvals were designed for traditional models and conflict with iterative methods. Efforts to streamline operations often meet resistance, but Lean initiatives such as digitization and reducing approval layers have already shown efficiency gains.

Project and Operational Risks

Transitioning to Agile carries risks of project delays, cost overruns, and operational instability. Concerns remain about deploying changes too quickly in mission-critical systems. Reputational risks and employee change fatigue are also significant. To manage these, banks use parallel processes, gradual scaling of Agile, and strict quality control measures.

Analyses. Balance Sheet Dynamics. The National Bank of Uzbekistan (NBU) experienced strong growth between 2020 and 2021. Total assets rose from **78.0 trillion UZS in 2020** to **99.0 trillion UZS in 2021**, a growth of **27%**. Liabilities also increased by the same proportion (from **64.8 trillion UZS** to **82.3 trillion UZS**), while equity expanded from **13.2 trillion UZS** to **16.6 trillion UZS** (+26%).

This demonstrates that the expansion of the bank's asset base was funded both through external liabilities and internal capital growth, preserving balance sheet stability.

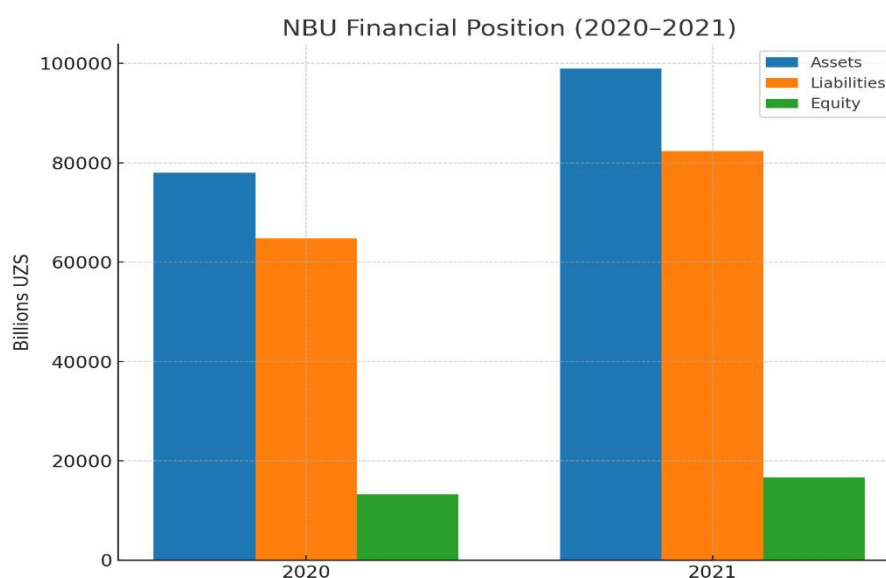


Figure 1. Growth of Assets, Liabilities, and Equity (2020–2021)

Interpretation: The figure shows a consistent upward trend across all three components of the balance sheet, highlighting proportional growth. This indicates effective financial scaling without overreliance on leverage.

2. Capital Structure

The composition of funding remained stable. In 2021, liabilities accounted for **83%** of total financing, while equity represented **17%**.

Capital Structure of NBU (2021)

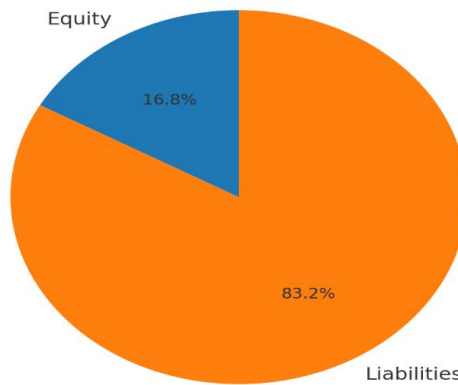


Figure 2. Capital Structure of NBU (2021)

Interpretation: The figure illustrates the bank's heavy reliance on liabilities, which is common for financial institutions but requires robust risk management. Maintaining adequate capital adequacy will be critical in ensuring resilience under future regulatory tightening and market fluctuations.

3. Asset Composition and Lending Activity

Loans and advances remain the dominant component of the asset portfolio, representing more than half of total assets. In 2021, they increased by **26%**, reinforcing the bank's role as a major credit provider. Investment securities and interbank placements also expanded, though their relative share is still smaller compared to loan operations.

Interpretation: This signals a clear lending-driven growth strategy, consistent with the state-led development role of the NBU. However, such concentration poses credit risk, particularly in a transitioning economy like Uzbekistan.

4. Liabilities and Funding Sources

On the liability side, customer deposits expanded by nearly **30%**, strengthening the bank's resource base. Foreign borrowings also grew, showing deepening cooperation with international partners and financial institutions.

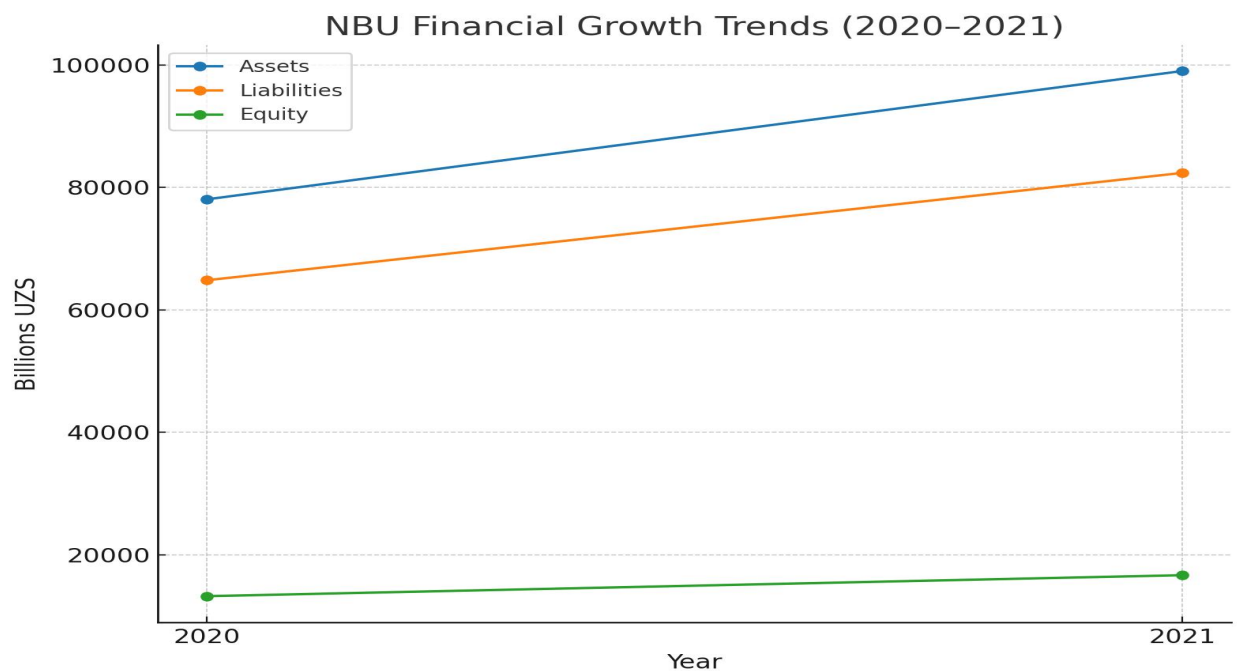


Figure 3. Financial Growth Trends of NBU (2020–2021)

Interpretation: The trend lines highlight steady growth in assets, liabilities, and equity, which move in parallel. While this indicates stability, it also suggests limited structural diversification, as reliance on traditional banking income streams remains high.

5. Profitability and Operational Efficiency

Net profit grew by **18%** in 2021, supported by rising interest income. However, operating costs grew almost proportionally, keeping the cost-to-income ratio high by international standards.

Interpretation: Despite profit growth, efficiency remains constrained by legacy processes and limited digitalization. From a **project management perspective**, this underscores the urgency of adopting **Agile and Lean methods** to optimize processes, reduce bureaucracy, and increase customer-centricity.

Discussion

Implementing Agile, Scrum, Lean, and similar project management approaches in Uzbekistan's banking sector is a complex but transformative process. The findings highlight cultural, regulatory, skill-related, and technical challenges that make the transition difficult.

Interpretation of Findings Many of the obstacles identified in Uzbek banks resemble those faced globally, though shaped by local conditions. Cultural resistance to cross-functional teamwork and Agile values is widespread, but in Uzbekistan it is intensified by historically weak management practices and limited exposure to modern approaches. Moving toward empowered teams, servant leadership, and continuous improvement represents a dramatic shift from past traditions, and early implementation attempts often meet skepticism.

Regulatory requirements present another major barrier. Heavily regulated industries tend to adopt Agile more slowly due to the need for strict compliance. In Uzbekistan, regulatory reforms, including the introduction of risk-based supervision, indicate a shift toward outcome-oriented oversight. This opens opportunities for banks to combine Agile practices with strong governance and compliance systems. Our results suggest that cautious experimentation—such as embedding compliance officers within Agile teams—can help bridge agility and regulatory oversight.

Managerial Implications Uzbek banks should consider strategies such as:

- Embedding compliance and risk functions into Agile teams.
- Ensuring transparency and documentation through Agile tools.
- Building management and staff competencies in Agile methods.
- Engaging in dialogue with regulators to shape practices that balance innovation and stability.

Overall, the transition to Agile is both necessary and challenging. Overcoming cultural inertia, aligning with regulatory reforms, and developing managerial capacity will be essential for banks in Uzbekistan to capture the benefits of modern project management without undermining stability or compliance.

A critical finding is the **knowledge and skills gap**, which has direct implications for successful Agile adoption. Organizational change cannot rely only on technology or processes; it must be paired with **human capital development**. In other countries, banks that achieved successful Agile transformation invested heavily in training programs and external coaching. One well-known case is ING in the Netherlands, where the bank reorganized into small empowered teams supported by structured education and leadership commitment. Uzbek bankers are aware of such examples, but local institutions currently lack the internal expertise to replicate them. This highlights the need for a **phased approach**: starting with pilot projects, training a cadre of “Agile champions,” and gradually building in-house expertise. Our survey results confirm this, showing that most employees have not received formal Agile training – an urgent gap to be addressed through workshops, exchange programs, and expert-led mentoring.

Legacy systems and process rigidity represent another barrier. While many Uzbek banks are investing in digital transformation – including IT modernization and automation –

outdated infrastructure still limits the feasibility of Agile practices such as continuous delivery. However, the same wave of digitalization that pressures banks to become more Agile also introduces new technologies (e.g., modular platforms, APIs, and cloud computing) that make Agile easier to implement. To maximize impact, **technical modernization and process reforms must evolve in parallel with management methodologies**. Establishing a modern project management office (PMO) that integrates Agile governance principles could ensure synchronization between technology upgrades and organizational change.

Finally, the **risks of transition** cannot be overlooked. Agile is not a universal solution, and adopting it in a highly regulated environment requires careful risk management. A practical way forward is to start with **controlled pilot projects** in non-critical areas, allowing teams to experiment and demonstrate quick wins. This mitigates operational risk while building confidence. Some banks may initially adopt a **hybrid or bimodal model** – applying Agile in innovation projects while maintaining traditional management for core systems – but the long-term objective should be to expand agility across the organization. Continuous improvement and structured retrospectives, key Agile principles, can help banks adapt the methodology to their unique risk profile while gradually overcoming cultural resistance.

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