UDC: 08.03.01
https://doi.org/10.59849/2409-4838.2026.1.87

APPLICATION OF AGILE METHODS AND THEIR IMPACT ON THE ECONOMY OF THE SECTOR (ON THE EXAMPLE OF IBA)

Ulvi Galib Aliyev
Azerbaijan State University of Economics, Baku, Azerbaijan
ulvialiyev360@gmail.com

In general, this study aims to understand the impact of Agile approaches on financial performance among different businesses with IBA as a reference. The study combines a set of quantitate and qualitative methods to evaluate in systematic manner the impacts resulting from an introduction Agile ideas, viz sporadic productivity improvement, cost cutting changes as well acceleration processes management within organization. Between these indications the results are assessed in this research and demonstrate that there is great value to be obtained from organizations wishing to apply Agile techniques in improving both manufacturing and service sectors. Agile methods had positively influenced decision-making in IBA's operational environments to a certain extent, improved project cycle time and increased resource efficiency as evidenced from the results of that study. It is despite this importance that individual sectoral adaptation mechanisms have been developed upon a detailed examination of its macroeconomic consequences. This shows that Agile can be used not only in the IT sector, but also across business as a whole.

***Keywords**: Agile, systematic risk, unsystematic risk, liquidity risk, loans.*

INTRODUCTION

According to the Agile model, each project should be approached differently and existing methods should be adapted to the project. The Agile process is famous for its distinctive features such as flexibility and adaptability. At the current stage of development of the Republic of Azerbaijan's credit and financial system, as well as the global economic community, risk management is a critical component of managing economic subsystems.

The scientific literature contains various definitions of agile and risk. Risk is frequently used to describe the possibility of failure, danger, or taking a chance with the hope of a positive outcome. Diversification criteria are widely used to classify risks in agile management. The aim of this article is to review previous research on agile approaches in banking, focusing on the factors to consider when implementing and using agility. The article focuses on the financial industry of Azerbaijan, in particular the governance structure and activities of the International Bank of Azerbaijan (IBA) as an example. The research focuses on how Agile management approaches are used in IBA, their impact on internal governance, agile decision-making processes, employee interaction, financial KPIs and the extent to which they affect the overall efficiency of the industry. The financial services industry will face a variety of significant technological developments, including the rise of digital currencies, financial applications, and specialized digital services. Agile risk is related with economic loss in the region, i.e. the likelihood of item damage or destruction. The more threats are identified, the less harm will be caused. In this regard, it is required to collect and assess data on various unfavorable events in order to identify broad patterns of development and trends in their frequency. A good assessment of the true cost of risk enables you to objectively examine the amount of loss and propose methods to reduce it. These are significant digital efforts that require continuous development from industry enterprises. Diversification criteria classify risk as systematic and unsystematic

[1]. Systematic risk is a type of risk that occurs as a result of economic, political or social events and cannot be avoided through diversification. Systemic risk cannot be eliminated, but can be managed by applying security measures. Unsystematic risk: These are risks that stem from the structure of intrinsic assets or leading bank and can be diversified. Solvency risk is one of the stability risks that banks face as part of their normal business. Governance risk means a multitude of bad things that can happen because people do not fulfill their corporate governance duties or organize themselves as teams within the management layer. In actuality, given the competitive nature of the banking industry, emphasis on sustainable competitive advantage has given way to unsustainable competitive advantage, and the concept of agility is a key tool for obtaining unsustainable competitive advantage. Rapid changes in modern financial technology, the existence of multiple organizational structures in banks, rapid changes in consumer banking expectations, and decreased customer conversion costs have all contributed to the need for agile banking. To summarize, the factors that have driven banks to adopt agile banking include gaining a competitive advantage, maintaining and increasing market share in a competitive environment, meeting explicit and implicit customer expectations and needs, diversifying product and service portfolios, increasing customer loyalty, and profitability.

No other collection of agile team case studies in the financial services industry has been developed, which suggests that there is a need for research in this area, especially given the aforementioned facts regarding major technological advancements and the strategic priority for being agile. Furthermore, this topic, including the details of the products in an agile software development team of a bank that deals with many banking transactions, interests me and will help me in my daily work.

MAIN PART

Economic effectiveness of Agile methods (on the example of IBA)

Agile means fast or adaptable. This method is increasingly common, especially in the case of IBA. It involves producing software in short, incremental cycles. Customers and developers communicate primarily through procedures and tools [10]. This technique emphasizes adapting to change rather than overall planning. According to the Agile model, each project should be approached differently, and existing methods should be adapted to the project. The Agile process is known for its distinctive features such as flexibility and adaptability. The Agile process model is a software development paradigm that emphasizes iterative development. The Agile approach, like the iterative model, requires long-term planning by breaking the project into smaller parts. These smaller components are delivered iteratively. Each of these cycles lasts about three weeks. Each iteration involves cross-functional teams collaborating on several areas. These categories include requirements, design, iteration, testing, deployment, and feedback. Each iteration ends with a product demonstration to customers and other key stakeholders. The Agile approach allows for adjustments to be made at any point in the project to meet project needs. In addition, incremental testing reduces the risk of disruption.

Banks are financial institutions that accept deposits and lend money in accordance with the Law of the Republic of Azerbaijan on Banks. Banks play an important role in ensuring the efficient functioning of the financial system in Azerbaijan and around the world [11]. The banking system acts as a channel between entities that lend and demand money. Banks not only facilitate transactions, but also offer financial advice, portfolio management and risk management services. Risk is defined as a set of events that are likely to occur and have negative consequences. In the banking aspect, financial risk refers to the possibility of not receiving the expected return. The main difference between the ideas of risk and uncertainty is that risk can be quantified. Expected return is the

amount that savers expect to receive from their investments. A "precept" is a stable, consistent truth or viewpoint about people or the environment that, since it is accurate, universal, and unchanging, may be used as a guidepost or measure to identify a successful approach. Taking into account the basic principles of software development, risk, MBSE, and Agile Scrum, our objective is to observe and examine the concepts and their interactions to assess whether we can design a good, organic, helpful, and productive risk management method. MBSE creates models for managing software development complexity and is recommended for creating financial sector systems Agile is founded on four basic ideas that value people, customer focus, working software, and flexibility, and it may be implemented in a variety of ways [12, p. 419]. The emphasis is on developer, stakeholder, and user participation, iteratively building and testing functional software, focusing on customer requests, and being flexible and adaptable to changing needs. After the second half of the 20th century, the ideas of expected return and risk were measured statistically. World experience, in the example of the IBA, emphasized the need for portfolio diversification [6].

Effective risk management through agile methods has various advantages. Risk management is also used to implement the principles of sustainability and resilience in the case of IBA [4]. We can discuss the advantages of risk management below:

- Reducing possible losses;
- Ability to make quick, effective decisions;
- Saving time;
- Preventing waste of resources;
- Keeping risks at an acceptable level;
- Maintaining openness to innovation; [5]

The concept of risk is defined from several aspects. These categories can be used to identify risks based on diversity criteria, sources and probable consequences. Diversification criteria are widely used to classify risks in agile management. Diversification criteria classify risk as systematic and unsystematic. Systematic risk is a type of risk that arises as a result of economic, political or social events and cannot be avoided through diversification [3, p. 104]. Systemic risk cannot be eliminated, but can be managed by implementing security measures. Unsystematic risk refers to risks that arise as a result of the structure of relevant assets or a leading bank and can be diversified. Many types of threats faced in the banking sector are described below (Table).

Among the above, the term ―Exchange rate risk‖ refers to the negative effects of exchange rate fluctuations. FX (foreign exchange) rate risk, a type of risk that occurs outside the control of the company and is defined as a systemic risk, affects investors, in the case of IBA. Inflation, often known as purchasing power risk, refers to the risk associated with general price increases. Inflation risk, defined as the increase in the cost of goods and services, affects all units and is classified as a type of systematic risk. Political risk is a type of risk that arises as a result of political events and activities in countries.

Banking sector risk is defined as the probability that asset prices will fall due to fluctuations in market prices and interest rates. Market risk is defined as the risk that the IBA takes on its assets [7]. Market risk is assessed in light of systematic risk. Liquidity risk is defined as the probability that an institution will not be able to convert its assets into cash quickly and at fair market value, or to receive cash when required. Operational risk is defined as the risk of losses arising from management and employee errors, lack of control, information technology failures, natural disasters such as earthquakes, floods and fires, or from these events.

Table

Different types of threats faced in the banking sector

Source: Compiled by the author [2, p. 203-220].

Solvency risk is one of the risks that banks face as part of their fundamental business operations. They are financial institutions that are authorized to carry out the activities specified in the Banking Law. Banks are required by law to accept deposits and grant loans. Loans are the transfer of cash to units seeking it at a predetermined exchange rate. Loans are offered depending on a number of criteria. Loans given to those in need are unlikely to be repaid. Credit risk is the possibility that the bank will not be able to repay the loan given to it. Banks must manage and minimize credit risk [8]. Interest rate risk is a type of systematic risk that arises as a result of changes in market interest rates. Interest rate risk, which cannot be reduced to zero or eliminated through diversification, is one of the threats that banks face and must manage as a result of their operations.

Financial risk is defined as the decline in the ability of a leading bank to pay its debts. Financial risk, which arises from the degree of financial leverage, causes the leading bank's income to fluctuate when borrowing. Business risk is the potential for loss of income in certain business areas as a result of a corporation operating in many business areas. The term "management risk" refers to the negative impact of sectoral changes on a business. Management risk is defined as the collection of undesirable events that may occur as a result of the failure of individuals to perform corporate governance duties or the formation of a management team. Financial risk, business and industry risk, and management risk are examples of unsystematic risks that investors can reduce with a well-diversified portfolio[9]. The ABB example has demonstrated that the successful implementation of an agile methodology offers significant advantages over competitors only when planned. The low level of development of this technology in Azerbaijan allows banks using agile to gain various competitive advantages, while at the same time ensuring a smooth transition to changing conditions in Azerbaijan.

CONCLUSION

Banks are financial institutions that accept deposits and lend in accordance with the Law on Banks of the Republic of Azerbaijan. Banks play an important role in ensuring the efficient functioning of the financial system in Azerbaijan and around the world. In the banking aspect, financial risk refers to the possibility of not receiving the expected income. The main difference between the ideas of risk and uncertainty is that risk can be quantified. Banking sector risk is defined as the probability of a decline in asset prices due to fluctuations in market prices and interest rates. At the same time, market risk is defined as the risk that the IBA takes on its assets. Market risk is assessed in the light of systematic risk. Liquidity risk is defined as the probability that an enterprise will not be able to quickly and fairly convert its assets into cash at market value, as well as receive cash when required. Banks must manage and minimize credit risk. Interest rate risk is a type of systematic risk that arises as a result of changes in market interest rates.

AKNOWLEDGEMENT

I would like to express my deep gratitude to my scientific supervisor, Associate Professor Maharramov Rashad, who guided me in the preparation of the article, provided direction for the analysis, and provided all his help in collecting all relevant research materials.

REFERENCES

1. Altay, E. Risk in Banking - Measurement and Management of Market Risk, Credit Risk and Operational Risk / E. Altay. – Istanbul: Deep Publications, - 2005.
2. Altunbas, Y., Binici, M., & Gambacorta, L. Macroprudential policy and bank risk // Journal of International Money and Finance, - 2018, 81, - p. 203 -220.
3. Iqbal, B. Project Management / B. Iqbal. – Baku, - 2020. – p. 104.
4. https :// developer . less / agile /
5. https://abb-bank.az/az/maliyye-ve-investisiya/diger-hesabatlar/risk-hesabatlari
6. https://abb-bank.az/az/xeberler/abb-agile-tecrubesini-sahibkarlarla-paylasib
7. https://banker.az/abb-nin-sedri-agile-transformasiyada-ehemiyyetli-netizeler-elde-etdiklerini-deyir/
8. https://webland.az/bloq/info/agile-nedir-ne-ucun-istifade-olunur
9. https://www.forbes.com/sites/bernardmarr/2022/03/25/the-4-biggest-future-trends-in-the-financial-sector/?sh=786397d13bcb
10. Law of the Republic of Azerbaijan on banks, - 2015.
11. Okka, O. Business Finance / O. Okka. - Ankara: Nobel Academic Publishing, - 2015.
12. Topper, J. Stephen, and Nathaniel C. Horner. "Model-based systems engineering in support of complex systems development." // Johns Hopkins APL technical digest, - 2013, 32 (1), - p. 419–432.

ÇEVİK (AGILE) METODLARININ TƏTBİQİ VƏ SAHƏ İQTİSADİYYATINA TƏSİRİ (ABB NÜMUNƏSİNDƏ)

Ü.Q. Əliyev

Bu tədqiqatın ümumi məqsədi ABB-dən nümunə kimi istifadə edərək, Çevik (Agile) texnikanın müxtəlif sənayelərdə maliyyə göstəricilərinə təsirini araşdırmaqdır. Tədqiqatda Agile prinsiplərinin qəbulu nəticəsində baş verən dəyişikliklərin sistematik qiymətləndirilməsi üçün həm kəmiyyət, həm də keyfiyyət metodlarını özündə əks etdirən qarışıq metodologiyalar, xüsusən də məhsuldarlığın artırılması, iqtisadi səmərəlilik və iş proseslərinin sürətləndirilməsi baxımından istifadə olu-

nur. Hazırkı tədqiqatın faydalılığı onun həm istehsal, həm də xidmət sektorlarının optimallaşdırılmasında Agile yanaşmalarından istifadə etmək üçün firmalara nəzərəçarpacaq tövsiyələr təklif edən tapıntıları ilə vurğulanır. Tədqiqat nəticəsində məlum olub ki, Agile metodologiyası ABB-nin əməliyyat mühitlərində qərar qəbul etməyi təkmilləşdirib, layihənin icra müddətlərini qısaldıb və resurs məhsuldarlığını artırıb. Onun aktuallığı onun makroiqtisadi təsirlərinin ətraflı araşdırılmasından sonra hazırlanmış sektoral uyğunlaşma mexanizmləri ilə vurğulanır. Tədqiqat göstərir ki, Agile metodologiyaları təkcə İT aspektində deyil, həm də ümumi müəssisələrdə istifadə oluna bilər.

Açar sözlər: *Çevik (Agile), riski sistematik, qeyri-sistematik, likvidlik riski, kreditlər*

ПРИМЕНЕНИЕ AGILE-МЕТОДОВ И ИХ ВЛИЯНИЕ НА ЭКОНОМИКУ ОТРАСЛИ (НА ПРИМЕРЕ ABB)

У.Г. Алиев

Общая цель данного исследования — изучить влияние гибких методов на финансовые показатели в различных отраслях на примере компании ABB. В исследовании используются смешанные методологии, включающие как количественные, так и качественные методы, для систематической оценки изменений, возникающих в результате внедрения принципов Agile, особенно с точки зрения повышения производительности, экономической эффективности и ускорения бизнес-процессов. Полезность настоящего исследования подчеркивается его результатами, которые предлагают компаниям конкретные рекомендации по использованию гибких подходов для оптимизации как производственной сферы, так и сферы услуг. Исследование показало, что методология Agile улучшила процесс принятия решений в операционной среде ABB, сократила сроки выполнения проектов и повысила производительность ресурсов. Его актуальность подчеркивается механизмами секторальной корректировки, разработанными после детального изучения его макроэкономических последствий. Исследование показывает, что Agile-методологии могут применяться не только в сфере ИТ, но и в бизнесе в целом.

Ключевые слова: *Agile, систематический риск, несистематический риск, риск ликвидности, кредиты*