

## Agile organisations in the BANI era: Case studies of companies utilising Scrum

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**Abstract.** Globalisation, technological breakthroughs, and unpredictable events have created an era in which traditional management approaches are losing effectiveness. Since 2020, businesses have been operating in a BANI world, where adaptability has become a key advantage. The aim of this study was to examine modern successful agile companies and determine the feasibility of implementing the Scrum methodology in the management processes of other organisations. The study employed several methods: theoretical generalisation and comparison (revealing the essence of SPOD, VUCA, and BANI worlds with a focus on key characteristics); analysis (examining global changes influenced by various factors and uncovering their specifics); statistical (data grouping to determine the percentage of companies worldwide using agile methodologies); and abstract-logical (formulating principles of Agile effectiveness, including its advantages and drawbacks). Agile methodologies were examined based on the experience of ten leading companies in flexibility, recognised for their significant achievements in innovation and high customer satisfaction. Current statistical data on the use of Agile, Scrum, and Kanban methodologies and their impact on company performance have been examined. The advantages of Agile approaches, the growing popularity of these methodologies among global companies, and the effectiveness of implementing flexible methodologies across various industries have been assessed. The practical experience of implementing flexible methodologies in the management processes of successful international companies has been analysed and systematised, along with a comparative assessment of different agile methodologies. Based on this, an effective tool for managing companies in the nonlinear BANI world has been proposed. It has been determined that achieving results requires an individualised approach, necessitating adaptation to the specific context. The practical value of the study lies in the systematisation and analysis of the modern, dynamic external and internal business environments of companies, providing management personnel with an effective tool for future navigation

**Keywords:** agile methodologies; adaptation; management process; team; framework

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### ● INTRODUCTION

In the first half of the 20<sup>th</sup> century, the business environment appeared stable and predictable. The SPOD world (steady, predictable, ordinary, definite) allowed companies to develop long-term plans and achieve consistent results.

However, with technological advancements, the emergence of the internet, and globalisation, the situation changed, which was reflected in the VUCA concept (volatility, uncertainty, complexity, ambiguity). The VUCA world concept has

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long served as a useful tool for describing the ever-changing business environment. However, even this concept cannot fully capture the scale of changes that companies face, and the term no longer entirely describes the modern reality. Since 2020, organisations have been operating in a BANI world (brittle, anxious, nonlinear, incomprehensible). The world has shifted from instability to fragility, from complexity to nonlinearity, and from uncertainty to anxiety, requiring organisations to adopt new approaches and tools. This is why the term BANI has replaced VUCA.

In the new business environment, companies that continue operating under outdated models risk falling behind competitors or even disappearing from the market. To thrive in the new environment, organisations must become more flexible and adaptive. That is why the requirements for employees are changing. Companies are looking for individuals who not only possess specific technical knowledge but also have a broad range of skills that enable them to adapt to constant changes. The widespread adoption of agile development methodologies, such as Scrum, in business highlights the need for professionals who can work effectively in teams and respond quickly to changes. University graduates must be prepared to work in an environment of constant transformation, requiring educational institutions to implement new learning approaches that develop teamwork and adaptability skills characteristic of Scrum teams (Qureshi & Amin, 2024).

To gain a deeper understanding of this issue, it is essential to refer to academic literature dedicated to studying the effectiveness of teamwork in dynamic environments. Researchers M. Salun & K. Zaslavskaya (2024) conducted an in-depth study on the evolution of the business environment and proposed five conceptual models – SPOD, VUCA, BANI, RUPT (rapid, unpredictable, paradoxical, tangled), and TUNA (turbulent, uncertain, novel, ambiguous) – to describe varying levels of dynamism and complexity in the surrounding world. Each model requires businesses to adopt different strategies to ensure resilience and success. The existence and operation of teams in chaotic and unstable environments have proven to be particularly complex issues. That is why this issue was studied by S. Bushuyev *et al.* (2024). The authors focused on studying the characteristics of collaboration in virtual teams, particularly in the context of the post-pandemic era. The importance of fostering learning, innovation, and change in virtual teams was emphasised, considering the complexity of the modern world. The authors of the study proposed a set of creative principles for effective management of innovative projects in the BANI environment, based on adaptive leadership, rapid prototyping, scenario planning, and cross-functional collaboration. Particular attention was given to the culture of continuous learning and innovation. It was also noted that traditional performance metrics for evaluating innovative projects in the BANI environment are insufficient, and more flexible and systemic approaches to assessing results were proposed.

G. Baskoro *et al.* (2024) noted that rapid changes will require highly skilled professionals to possess the ability to think critically and analyse large volumes of information. Only those who possess these skills will be able to successfully solve complex problems and make well-founded decisions in conditions of uncertainty. The study proposed

the use of the multidisciplinary master's program (MDMP) model as an effective tool for developing higher-order thinking skills (HOTS) in the field of human resource management. Such a program will integrate theoretical knowledge from the academic environment with practical industry experience, fostering the development of essential competencies in future professionals.

The experience of well-known international companies demonstrates the effectiveness of using the Scrum methodology for team management. The study by D. McCreery (2024) confirmed that Google achieved significant success through the effective integration of business and technology, with Agile development methodology at the core of this success. The company did not simply use Agile but integrated its principles into its organisational culture, enabling it to quickly adapt to market changes and meet user needs. By utilising Agile, Google can efficiently manage a vast number of projects, from search engines to cloud services, while maintaining high product quality. A crucial factor in Google's success was its focus on users and teamwork. The corporation actively involves its audience in the development process, which has enabled the creation of products that truly meet their needs. Due to close collaboration between different teams, complex projects can be implemented quickly, and innovations can be introduced efficiently. In particular, the development of the Google Chrome web browser has become a striking example of how short iterations in development and close cooperation with the target audience have enabled the creation of one of the world's most popular web browsers. Continuous feedback from the target audience allowed the team to quickly refine the product and implement innovations. Google's entry into the cloud computing market with Google Cloud Platform was also the result of the successful application of Agile. Dynamic adaptation to changes enabled Google Cloud Platform to compete successfully with more experienced players.

These examples confirm that Agile development methodology has been a key factor in the corporation's success in creating innovative solutions. However, a systematic and comprehensive approach to the problem of companies' adaptation in conditions of uncertainty has hardly been identified. Therefore, the study highlighted the need for an analysis of world concepts during epochal changes, the search for new methodologies, and an examination of the characteristics of successful companies operating in the BANI environment, which was the main objective of this research.

## ● MATERIALS AND METHODS

The theoretical foundation of this study was based on statistical data, scientific developments, and scholarly works. The following sources of information were used: survey data on organisational flexibility (Success rates..., 2017; Panditi, 2018), annual reports on the state of Agile (17th state..., 2022), and statistical data on Agile (Djurovic, 2023), which enabled an analysis of the effectiveness of companies' implementation of Agile methodologies. The study was largely based on analytical research of successful international companies regarding the application of Agile methodologies and approaches used for adaptation to a nonlinear world. The analysis is based on the experience of leading innovative leaders who apply Agile methodologies,

including Boa Vista, Vanguard, BBVA (The Banco Bilbao Vizcaya Argentaria), Bosch, SSOE Group, PayPal, Roche Korea, AstraZeneca, Amazon and Spotify.

Various methods were used to address the research objectives. The methods of generalisation and comparison in the article were used to examine the changes in the external and internal environment of the world. These methods helped to reveal the essence, summarise the results, and characterise the differences between SPOD, VUCA, and BANI worlds by comparing them and justifying the need for companies to adapt to such transitions. The comparison method was used to characterise and compare different methodologies: Scrum, Agile, and Kanban. This method was also applied in the comparative analysis of the use of the Scrum methodology in leading international companies such as Amazon and Spotify.

The analysis method was used to explore the transformation of the world under the influence of various factors and to reveal their specific characteristics. Additionally, an analysis was conducted on companies' use of Agile methodologies and the benefits derived from their application. The statistical method was used to categorise data, allowing for an understanding and analysis of the percentage of companies worldwide utilising Agile methodologies. The next method was synthesis. This method enabled a systematic review of scientific studies, synthesising their results to identify general trends, patterns, differences, and gaps in scientific knowledge regarding the use of Agile methodologies by international companies. The generalisation method was used in formulating key conclusions and main aspects of the study, emphasising the necessity of implementing Agile methodologies in the educational process. Based on the analysis of specific data, more general theoretical propositions have been formulated to explain the obtained results.

The abstract-logical method helped analyse a large number of Agile projects by abstracting from their specific

details, allowing the identification of general trends and patterns. Based on this analysis, general provisions regarding the effectiveness of Agile, its advantages, and disadvantages were formulated. The tabular method served as a data visualisation tool that facilitated comparison, analysis, and generalisation of information. It enabled the presentation of complex concepts in a clear and structured manner. A comparative analysis of the SPOD, VUCA, and BANI concepts was conducted, focusing on their key characteristics and their impact on business.

For the study of the Scrum methodology, Amazon and Spotify were selected, as these companies are recognised leaders in the technology sector, successfully applying Scrum for the rapid development and delivery of innovative products, making them ideal case studies. The choice of companies for analysing Agile methodologies and assessing their benefits was driven by their leadership in flexibility, achievements in innovation, and high customer satisfaction. Furthermore, these companies have extensive experience in implementing Agile practices and are open to sharing their knowledge. To identify differences and similarities in the application of Scrum at Amazon and Spotify, a comparative analysis was conducted based on the following criteria: implementation strategy, team structure, Scrum distribution methods, team focus, success metrics, barriers, impact on corporate culture, and technical debt management.

## ● RESULTS

### Transition to the era of chaos and information overload

Further, the study analyses how the world has changed under the influence of various inherent factors, highlighting their unique characteristics and distinguishing features. The conducted analysis of the SPOD, VUCA, and BANI world models, as presented in Table 1, clearly demonstrated the evolution of the world from a stable and predictable environment to an unstable and highly dynamic one.

**Table 1.** Comparative analysis of SPOD, VUCA, and BANI worlds

| Characteristics           | SPOD   | VUCA  | BANI   |
|---------------------------|--|---|--|
| Period of manifestation   | The first half of the 20 <sup>th</sup> century               | Since 1980  | Since 2020   |
| Main idea                 | Stable, predictable, simple and defined world                | A world of constant change, uncertainty, complexity and ambiguity | A world characterised by brittleness, anxiety, nonlinearity and incomprehensibility                |
| 1 <sup>st</sup> Component | Steady: high stability, absence of significant changes       | Volatility: rapid changes, turbulence, unpredictability           | Brittle: possibility of sudden collapse, system instability  |
| 2 <sup>nd</sup> Component | Predictable: ability to predict future events                | Uncertainty: lack of information, uncertainty about the future    | Anxious: a constant sense of anxiety and fear of the unknown                                       |
| 3 <sup>rd</sup> Component | Ordinary: absence of complexity, clear rules and regulations | Complexity: many interconnected elements, system complexity       | Nonlinear: absence of direct cause-and-effect relationships, unpredictable consequences of actions |
| 4 <sup>th</sup> Component | Definite: clear boundaries, clear answers to questions       | Ambiguity: many interpretations, lack of clear answers            | Incomprehensible: complexity of understanding the world, lack of a complete picture                |
| Key differences           | Stability, predictability, simplicity and definiteness       | Instability, uncertainty, complexity, and ambiguity               | Brittleness, anxiety, nonlinearity, and incomprehensibility  |
| Consequences              | Stability, long-term planning, linear processes              | Need for adaptability, flexibility, and rapid decision-making     | Need for resilience, emotional intelligence, and unconventional thinking                           |

Table 1, Continued

| Characteristics              | SPOD                                       | VUCA  | BANI  |
|------------------------------|--|---|---|
| Challenges for business      | Lack of competition, slow changes          | Rapid changes, need for adaptation, risk management | Constant instability, necessity for anti-fragility, focus on the future |
| Skills necessary for success | Specialisation, execution of routine tasks | Flexibility, adaptability, creativity               | Anti-fragility, leadership, strategic thinking                          |
| Results                      | Industrial revolution, economic stability  | Globalisation, information era                      | COVID-19 pandemic, climate change, war in Ukraine                       |

**Source:** created by the authors

Each of these models represents a specific stage in societal development and presents unique challenges to society. The transition from SPOD to BANI indicates increasing complexity and uncertainty. While companies once relied on stable conditions and long-term planning, success in the modern world depends on the ability to quickly adapt to change, think creatively, and be prepared for unexpected events. Brittleness, anxiety, and nonlinearity, characteristic of the BANI world, require the development of new skills and competencies, such as stress resilience, emotional intelligence, and strategic thinking. Understanding these models enables more effective navigation in the modern world and the construction of one's future. Knowledge of each model's characteristics helps identify challenges, develop strategies, cultivate skills, and make more informed managerial decisions.

#### Statistical data on the use of Agile methodologies by companies worldwide

Various studies indicate that Agile remains the undisputed leader among software development methodologies. More than two-thirds of companies have chosen Agile, abandoning the traditional Waterfall approach. This decision is driven by clear advantages: Agile not only increases the likelihood of successful project completion by 16% compared to Waterfall but also contributes to significant revenue growth for companies (Djurovic, 2023). According to KPMG research, 81% of companies had implemented Agile in their workflows by 2019, starting from 2016 (Martini & Bosch, 2016; Agile transformation..., 2019). By 2020, statistics show a strong surge in Agile adoption with the onset of the pandemic.

A survey conducted in May 2020 showed that 43% of companies became more inclined toward flexible work schedules over the previous three months (February, March, April) (17<sup>th</sup> state..., 2022). This shift was driven by the COVID-19 pandemic, which accelerated the transition to remote work. Additionally, Agile approaches, which facilitated effective collaboration in distributed teams, contributed to the rise of flexible work models. Research conducted by Delta Matrix, analysing over 8,000 projects, found that flexible teams are, on average, 25% more productive than their industry counterparts (Kremic, n.d.).

In 2024, Agile firmly established itself as the most popular software development methodology. According to Capterra, 71% of companies have already adopted Agile (Success rates..., 2017), while Version One reports that 98% of companies observed positive changes after its implementation (The 11<sup>th</sup> annual..., 2017). Harvard Business Review confirms that Agile contributes to revenue

and profit growth (Panditi, 2018). Compared to Waterfall, Agile delivers significantly better results: according to Standish Group Chaos, Agile's success rate is 60% higher. This indicates that flexibility has become the new standard in software development (What is Agile..., 2024). The most popular Agile frameworks include Scrum, Lean, XP, Kanban, and FDD.

Analysis of statistical data on the use of the Scrum methodology shows that it is a widely popular approach applied by many companies worldwide. Organisations utilise it both as a standalone agile methodology and as a hybrid model. In 2023, 66% of surveyed companies reported choosing the Scrum methodology (Schäfer, 2023a; 2023b). 81% of agile teams use a variant or hybrid version of Scrum. Teams that fully implement Scrum and estimate workloads for their tasks achieve 250% higher work quality compared to teams without such estimates. This improvement is largely due to a significant reduction in error density. On average, teams without estimates encountered more than 20 errors, whereas Scrum teams recorded less than 10 errors. Agile methodologies were primarily adopted by software development departments (86%) and IT teams (63%). Additionally, Scrum gained interest among HR departments (16%) and sales teams (11%). Regarding Agile adoption, statistical data remains consistent. Surveys and research confirm that Agile has become not only the most popular software development methodology but also a key success factor for modern companies, enhancing their efficiency, profitability and competitiveness.

#### Analysis of differences between Scrum, Agile, and Kanban

In project management terminology, three similar concepts exist in the context of managing projects and teams: Scrum, Agile, and Kanban. To gain a deeper understanding and justify the use of the Scrum methodology, it is essential to recognise their differences. Scrum, Agile, and Kanban are popular project management methodologies, particularly in the IT industry. While they share a common goal – ensuring a flexible and efficient development process – they each have distinct characteristics and nuances. These models differ in various factors, such as project complexity, scope of work, time and budget constraints and the number of specialists in a team. As a result, management personnel must choose a model that considers these factors and optimises the product development process (Scrum vs Agile vs Kanban..., 2023). Table 2 compares the characteristics of Scrum, Agile, and Kanban to help understand their differences and determine which methodology companies should adopt in different situations.



**Table 2.** Comparative characteristics of different methodologies: Scrum, Agile, Kanban

| Characteristics | Scrum  | Agile  | Kanban   |
|-----------------|--|--|--|
| Definition      | A lightweight framework (concept) based on empiricism and lean thinking                      | A software development philosophy that emphasises flexibility, adaptability and meeting customer needs | A management method or approach that can be used independently or as an additional tool within an existing methodology |
| Key principles  | Sprints, roles, daily meetings, retrospectives   | Flexibility, adaptability, collaboration, self-organisation, continuous improvement                    | Visualisation, work-in-progress limits, flow, enhancement  |
| Iterations      | Sprints (usually 2-4 weeks) with fixed duration  | Can vary in length depending on project needs  | No fixed iterations, work is carried out continuously  |
| Roles           | Clearly defined: product owner, scrum master, team   | Can be more flexible depending on the project  | No clearly defined roles, focus on teamwork  |
| Planning        | Detailed planning for each sprint  | Can be more flexible, focusing on priorities   | Focuses on workflow visualisation and limiting the number of tasks in progress   |
| Changes         | Prioritised, can be introduced within the sprint but require discussion                      | Welcomed and can be quickly integrated into the development process                                    | Can be introduced at any time, but their impact should be monitored  |
| Focus           | On delivering product increments at the end of each sprint                                   | On meeting customer needs and continuously improving the product                                       | On optimising workflow and removing obstacles  |
| Suitability     | For projects with clearly defined requirements and the need for regular incremental delivery | For projects with a high level of uncertainty and the need for rapid adaptation to changes             | For any type of project where workflow visualisation and continuous process optimisation are essential                 |
| Common “core”   |  | The need for facilitation or support in delivering a product with the highest value to the user        |  |

**Source:** developed by the authors

In the real world, there are many projects that follow a hybrid approach, combining the best practices from various management models within a single project. This is evidenced by the annual report on the state of Agile technologies (17<sup>th</sup> state..., 2022). Agile encompasses a wide range of concepts and techniques, the most common of which include Scrum, Kanban, Scrumban, Lean, Extreme Programming (XP) and others. Organisations often use hybrid approaches, combining elements of Scrum, Kanban and other methodologies to find the optimal solution for their needs. The choice of methodology depends on various factors, such as the size and complexity of the project, the team's experience, client requirements and the type of product. While Scrum, Agile, and Kanban share many similarities, they also have distinct characteristics. The best approach often depends on the specific context and the needs of the team and project. By understanding the strengths

and weaknesses of each, organisations can make informed decisions about which methodology to adopt or adapt.

#### Company case studies on the use of Agile methodologies

A flexible company is a people-oriented organisation that quickly adapts and responds to new challenges and opportunities in the market or changes in customer behaviour. Its flexible nature ensures rapid adaptation and optimal employee productivity in a dynamic environment. The ultimate goal of a flexible organisation is to meet customer needs by continuously delivering valuable products (McCreery, 2024). Such companies respond to market changes, adapt quickly and have the willingness and drive for change, making them leaders in the use of agile methodologies. Case studies of well-known flexible companies and the methodologies they use in their operations have been examined (Table 3).

**Table 3.** Examples of companies using Agile methodologies and the benefits of their application

| Company, Type of activity                           | Transformation goal   | Applied methodologies    | Benefits   |
|---|---|--------------------------|--|
| Boa Vista<br>Brazilian financial solutions provider | Accelerating delivery and rapid adaptation to customer needs                            | Kanban                   | - increased visibility of team and department operations<br>- reduced project wait time<br>- team flexibility in response to external factors    |
| Vanguard<br>investment management company           | Increasing efficiency and transitioning to a truly Agile company                        | Scrum, Kanban            | - fast learning process<br>- quick feedback mechanism<br>- comprehensive workflow visualisation<br>- clear workload distribution                 |
| BBVA<br>financial company                           | Stable value flow, rapid market adaptation, work prioritisation and continuous learning | Kanban, Portfolio Kanban | - quick feedback on the status of work items<br>- data-driven decision-making<br>- improved synchronisation and project prioritisation           |
| Bosch<br>automotive giant                           | Enhancing innovation and flexibility  | Scrum                    | - faster adaptation to changes<br>- more flexible company<br>- problems are seen as obstacles for the entire company, not just individual groups |

Table 3, Continued

|   |  |                                |  |
|---|--|--------------------------------|--|
| SSOE Group<br>global player in project<br>implementation<br>for architecture    | Enhancing collaboration<br>and optimising workflows  | Kanban                         | - rapid implementation of workflow visualisation practices<br>- improved collaboration between teams<br>- increased transparency in operational activities   |
| PayPal<br>electronic<br>payment system  | Rapid delivery<br>of value to customers              | Scrum                          | - closer proximity of teams to customers<br>- clear definition of product owners<br>- optimised management of dependencies between projects<br>- planning and execution at the project portfolio level |
| Roche Korea<br>subsidiary of a global<br>pharmaceutical<br>giant Roche          | More adaptive processes<br>and patient-centred focus | Agile model<br>(unspecified)   | - 30% increase in sales<br>- greater number of patients benefiting<br>from medications and services<br>- faster response to customer needs<br>- simplified decision-making process                     |
| AstraZeneca<br>scientific<br>biopharmaceutical<br>and pharmaceutical<br>company | Enhancing project<br>transparency and innovation     | Agile methods<br>(unspecified) | - establishing a centralised<br>project management organisation<br>- unified vision and mission<br>- increased production levels<br>- continuous improvement of process efficiency                     |

**Source:** developed by the authors based on I. Krasteva (2022)

Data analysis reveals a clear trend among large companies shifting towards Agile methodologies, particularly Scrum and Kanban. Regardless of the industry – finance, pharmaceuticals, technology, automobile manufacturing – companies adopt these approaches to enhance efficiency, flexibility and customer orientation. Corporate experience demonstrates that Agile methodologies enable faster responses to market changes, adaptation to new conditions and quicker product delivery to customers. Workflow visualisation, as seen in Kanban, increases transparency, helping teams and managers better understand project status and make informed decisions. Agile methods also promote closer collaboration between teams, boost employee engagement and improve communication, allowing companies to focus on customer needs while ensuring rapid delivery and continuous product improvement. Regular iterations and feedback help identify and resolve issues at early stages, leading to improved product and service quality.

The data in Table 3 also shows that some companies use a combination of Scrum and Kanban, selecting the best elements from each methodology to address specific challenges.

Companies are increasingly adopting Agile methods for project portfolio management, allowing them to better prioritise work and optimise resources. It is important to remember that successful Agile implementation requires changes in the company's organisational culture, creating an environment that fosters innovation, experimentation and continuous improvement. As a result, Agile methodologies are becoming the standard for many companies striving to remain competitive in a dynamic business environment. Implementing Agile demands considerable effort but yields tangible results in terms of increased efficiency, flexibility and customer orientation.

It is important to analyse cases of successful implementation of the Scrum methodology in two well-known international companies with distinct economic activities: Amazon, the world's largest company specialising in e-commerce and cloud computing and Spotify, one of the world's leading streaming services, enabling users to access millions of songs and podcasts online (Table 4). Amazon and Spotify are both market leaders recognised for their agility and technological expertise (How Amazon and Spotify..., n.d.).

**Table 4.** Comparative characteristics of Scrum methodology usage in Amazon and Spotify

| Characteristics            | Amazon   | Spotify   |
|----------------------------|--|---|
| Implementation strategy    | Decentralised, bottom-up approach                        | Centralised, top-down approach                            |
| Team autonomy              | High autonomy  | High autonomy   |
| Team structure             | Stable, long-term teams                                  | Flexible structure, teams can change                      |
| Approach to Scrum adoption | Flexible learning, communities, training programs        | Systematic approach, mandatory training for Scrum Masters |
| Focus area                 | Knowledge sharing, long-term team structures             | Rapid response to changes, team autonomy                  |
| Sprint duration            | Typically 2-4 weeks                                      | Flexible, project-dependent                               |
| Role of product owner      | Often combined with other roles                          | Clearly defined, customer value-focused                   |
| Project management tools   | Custom-built solutions, Jira                             | Jira, Trello  |
| Success metrics            | Release frequency, customer satisfaction, technical debt | Delivery speed, code quality, team satisfaction           |

Table 4, Continued

| Characteristics                       | Amazon   | Spotify  |
|---------------------------------------|--|--|
| Barriers                              | Scaling complexity, cultural preservation                                    | Maintaining focus on long-term goals   |
| Level of test automation              | High automation, investments in testing infrastructure                       | High automation, use of CI/CD (Continuous Integration / Continuous Delivery) tools |
| Retrospective frequency               | Regular retrospectives, weekly or bi-monthly                                 | Regular retrospectives, focused on continuous improvement                          |
| Impact on corporate culture           | Encourages innovation and experimentation                                    | Has shaped the company's unique culture  |
| Relationship with other methodologies | Integration with Lean, DevOps (development and operations, hereafter DevOps) | Strong emphasis on Lean Startup  |
| Role of technical debt                | Actively managed, prioritised repayment                                      | Recognised as inevitable but managed   |

**Source:** developed by the authors based on I. Krasteva (2022)

The data in Table 4 demonstrates that both companies have achieved success by employing different Scrum implementation strategies, highlighting the flexibility of the methodology and its ability to adapt to various organisational contexts. Both companies grant teams significant autonomy, which fosters initiative and enhances efficiency. Analysis shows that the successful implementation of Scrum largely depends on the company's overall corporate culture and leadership support. Role distribution within Scrum is crucial, with the Scrum Master playing a key role in ensuring the effective functioning of teams and the successful adoption of Scrum within the organisation. It is evident that the implementation of Scrum varies across companies, as Scrum is not a static methodology but a continuous improvement process requiring teams to engage in ongoing learning and development. Both companies facilitate this growth, though in different ways, depending on the specifics of their operations.

Additionally, both companies recognise the importance of test automation in ensuring product quality and quickly identifying defects. Both companies integrate Scrum with other methodologies, such as Lean and DevOps, to maximise efficiency. The frequency of retrospectives varies between the companies, but both recognise that regular retrospectives help teams refine their processes and address challenges. Scrum fosters a more open, trusting, and innovative corporate culture. Amazon emphasises innovation and experimentation, while Spotify has used Scrum to shape a unique corporate culture. The data from Table 4 supports conclusions regarding Scrum usage at Amazon and Spotify. It has been established that both companies successfully apply Scrum while maintaining distinct approaches, underscoring the importance of adapting the methodology to a company's specific context.

The implementation of flexible methodologies such as Agile, Scrum, and Kanban is becoming increasingly relevant for Ukrainian companies. More and more businesses are recognising the advantages of this approach. Firstly, IT industry companies – including EPAM Systems, SoftServe, and MacPaw – are actively using Agile methods in their projects, making them known for innovative solutions and high-quality products (Riabchykov & Hanushchak-Yefimenko, 2024). Secondly, leading financial sector companies – such as one of Ukraine's largest banks, PrivatBank, and the dynamic Monobank – are gradually integrating Agile elements into their development processes, allowing

them to respond rapidly to market changes and offer innovative financial products to their customers.

This trend is driven by the need for rapid adaptation to changing market conditions, increased operational efficiency, and improved customer satisfaction. Flexible methodologies enable teams to work more autonomously, focusing on outcomes rather than rigid planning. This approach enhances employee motivation, improves product quality, and reduces time to market, ultimately leading to successful business development in the modern BANI world. Based on the experience of successful global companies, it can be concluded that implementing flexible methodologies, particularly Scrum, is a viable strategy for organisations. For Ukrainian companies to transition effectively to agile management, they must conduct thorough preparation, engage all employees in the process, and ensure continuous support from company leadership.

## ● DISCUSSION

Both global and Ukrainian scholars have examined the successful application of flexible methodologies. S. Povna (2020) conducted a detailed analysis of the features and effectiveness of flexible management methodologies, specifically Kaizen and Agile. The researcher emphasised that these methodologies are geared toward the continuous improvement of organisations and the enhancement of their competitiveness in a dynamic business environment. Agile, as a more modern methodology, demonstrates high effectiveness in project management, particularly within the IT industry. However, its successful implementation requires significant changes in organisational culture and readiness among employees to adapt. In contrast, Kaizen, as a more traditional Japanese concept, focuses on gradual improvements and involves all employees in the process of change. The study concludes that both methodologies can serve as effective tools for the development of Ukrainian enterprises, but their successful implementation necessitates a thorough analysis of each organisation's specific characteristics and its readiness for change.

Researchers, including W. Aghina *et al.* (2018) have demonstrated five key elements that are common to successful Agile organisations regardless of size or industry. These elements include a network of teams at the centre of a people-oriented culture that operates in cycles of rapid learning and decision-making. The work of these teams is supported by technologies, and the organisation's common

goal is to create value for all stakeholders. Organisations operating under the old paradigm are viewed as machines. This paradigm no longer functions under conditions of rapid change. In contrast, Agile organisations are more adaptive and better respond to continuous innovations and competitive pressure.

McKinsey & Company conducts numerous studies on the implementation of flexible methodologies by organisations. A study conducted by C. Handscomb *et al.* (2020) demonstrated that companies using Agile methods managed the impacts of the COVID-19 pandemic significantly more effectively than their competitors. This success is attributed to the integration of flexible practices into all aspects of company operations. Ukrainian companies can leverage the experience of global leaders by implementing Agile practices to enhance their competitiveness. This will allow them to adapt more quickly to changes, utilise resources more efficiently, and better meet customer needs.

The research by S. Hassani-Alaoui *et al.* (2020) revealed that, in practice, teams often deviate from the formal Scrum guidelines. This indicates that Scrum, like any other methodology, is adapted to meet the needs of specific projects and organisations. However, such deviations can have both positive and negative consequences. On the one hand, it allows teams to be more flexible and adapt to changes; on the other hand, it may result in the loss of certain Scrum advantages, such as transparency and predictability. Research has also shown that scaling Scrum is a complex task that requires careful planning and diligent oversight. Many organisations employ informal approaches to scaling, which may lead to the formation of silos and limited visibility between subgroups. This can adversely affect project success. Therefore, the study's findings underscore the importance of understanding that Scrum is not merely a set of rules, but a flexible methodology that must be adapted to the specific context. However, such adaptation should be undertaken cautiously to avoid losing Scrum's inherent benefits.

The research by M. Morandini *et al.* (2021) was dedicated to evaluating the effectiveness of applying the Scrum methodology in various organisations. It revealed that, although Scrum is a popular and widely adopted software development strategy, its implementation and effectiveness can vary significantly based on an organisation's specific conditions. Despite the existence of numerous "best practices" for Scrum, their application is not always straightforward and may require adaptation to the unique needs of a project and team. The study's results indicate the necessity of an individualised approach to implementing Scrum within each organisation. It is also important to consider factors such as team size, developers' experience, the nature of the project, and the overall organisational culture. Additionally, the research underscored the importance of regularly evaluating the effectiveness of employed Scrum practices and ensuring their alignment with the set objectives.

A. Bardas & O. Avramenko (2023), while investigating the use of agile methodology for project management in banking organisations, concluded that this methodology may become a key factor in the successful transformation of Ukraine's banking system by providing the necessary agility and rapid response to changing market conditions – a critical requirement for modern financial institutions. The authors rightly emphasised that for Agile to be implemented

effectively, it is essential to invest in the development of qualified personnel, improve communication, and establish reliable project management processes. Agile will enable banks to quickly adapt their products to meet customer needs, thereby enhancing their competitiveness. Furthermore, the iterative development that is fundamental to agile will contribute to improving product quality and reducing risks by ensuring stakeholder expectations are met.

One of the key challenges in implementing Agile in Ukrainian companies is the cultural aspect, according to research by N. Kovalchuk & K. Komarova (2023). Traditional hierarchical structures and cultures, where priority is given to planning and control, can create resistance to change. For successful transformation, it is necessary to establish an environment where employees feel safe, can express their ideas, and assume responsibility. It is also important to ensure proper training for leaders who would play a key role in changing the organisation's culture.

S. Moscoso-Zuñe *et al.* (2024) found that the successful implementation of Agile methodologies significantly enhances key organisational performance indicators, such as project delivery speed, customer satisfaction, team effectiveness, productivity, and the development of an innovation culture. The analysis of data collected from 1,161 participants across various economic sectors revealed four key factors for successful Agile implementation: clarity and quality of work, alignment between business and IT departments, risk and cost reduction, as well as management optimisation. Agile effectiveness directly correlates with the evaluation of internal processes, organisational culture, the development methodologies employed, and the level of cross-functional teamwork. Among the advantages of Agile, the authors of the study highlighted increased employee motivation, improved product quality, higher productivity, and cost reduction.

Flexible methodologies are evolving to a higher level and are applied not only in the IT sector but also in manufacturing. In the research by S. AlHayek *et al.* (2024), it is shown that manufacturing organisations face a constant increase in customer demands, market instability, and various constraints. In order to remain competitive, they need to implement new methods, including the use of digital technologies. Agile principles and methods have also become widespread in the field of manufacturing. The authors examined the application of Agile methods in manufacturing enterprises and their impact on production speed, profitability, and quality. The analysis revealed an increase in interest in Agile production since 2019. The study defines Agile as the ability of manufacturing to conduct business under conditions of uncertainty and to flexibly respond to customer demand. The results reveal significant opportunities and challenges for enhancing Agile production, which will be useful for production and operations managers.

Research conducted by N. Nweder (2024) demonstrated that small companies that implemented Agile methodologies, such as Scrum and Kanban, achieved significant success in increasing development speed, product quality, and customer satisfaction. Due to regular sprints, daily meetings, and other Agile practices, the companies were able to adapt more quickly to market changes and collaborate more effectively with customers. However, the process



of implementing Agile was not always straightforward. Resistance to change and inadequate staff training were the main challenges. Nevertheless, the study confirms that Agile methodologies can be successfully applied in small companies, provided that proper preparation and management support are in place.

Researchers E. Chukwurah & S. Aderemi (2024) conducted a detailed analysis of the experience of implementing Scrum in leading American technology companies and demonstrated the significant positive impact of this methodology on team performance and overall business results. The study showed that Scrum transforms traditional ways of working, contributing to the creation of more cohesive and self-organised teams. The regular iterations provided by Scrum allow companies to quickly adapt to market changes, enhance product quality, and meet customer needs. In addition, Scrum fosters a culture of continuous improvement that enables teams to constantly develop and refine their processes. The key factors for successful Scrum implementation were the creation of cross-functional teams, delegation of authority, communication transparency, and leadership support. These elements contribute to increased employee motivation, enhanced accountability, and the creation of an atmosphere of trust within the team. The paper provides examples of successful Scrum application in companies such as Spotify, Google, and Amazon, demonstrating how this methodology helped them achieve significant results. Overall, the study confirms that Scrum is a powerful tool for enhancing efficiency and innovation in technology companies.

B.M. Mishra *et al.* (2024) stressed that the traditional Lean management approach, although effective, may be insufficient for navigating the modern BANI environment. The challenges associated with BANI require more flexible and adaptive approaches. The authors in their study focused on the impact of the transition from VUCA to BANI for IT professionals. They investigated how changes in the work environment affected employee behaviour and their perception of new working conditions. S.S. Vishwakarma & S.K. Pandey (2024) in their study emphasised that modern organisations operate in an environment characterised by VUCA, which is further complicated by BANI. However, to remain competitive and resilient, companies must implement strategies for agile transformation. According to the authors, an important aspect should be the proper selection and adaptation of flexible methodologies, such as Scrum and Lean, to the specific context of the organisation. The research showed that companies implementing flexible practices gained significant advantages, including increased operational efficiency, reduced time to market, and improved customer satisfaction. However, it is worth noting that the agile transformation process may face certain challenges, such as resistance to change and scaling issues. Therefore, it is crucial to carefully plan and manage this process.

Scrum is a key methodology for enhancing business efficiency and agility, especially in Ukraine's dynamic IT sector, as confirmed by T. Pavliuk & L. Polusmiak (2024). The study indicated that implementing Scrum will contribute to increasing companies' competitiveness, optimising team performance, and improving product quality. However, insufficient understanding of Scrum may hinder

its effective use, which will require a higher level of knowledge and the sharing of experience. In the environment of rapid change and growing competition, Scrum can become an indispensable tool for effective personnel management and adaptation to market demands. The authors note that the adoption of the Scrum methodology significantly optimises work processes and improves interaction in companies across various sectors, from manufacturing to the public sector. This approach will ensure quick adaptation to changes, boost efficiency, and promote digitalisation. Successful integration of Scrum will require a systematic approach, including detailed analysis, staff training, and continuous process improvement. The key elements will involve forming cross-functional teams, holding regular meetings, monitoring performance, and involving leadership.

Researchers E. Chukwurah & S. Aderemi (2024) conducted a detailed analysis of the implementation of Scrum in leading American technology companies and demonstrated a significant positive impact of this methodology on team efficiency and overall business results. The study showed that Scrum transforms traditional working methods by fostering the creation of more cohesive and self-organising teams. The regular iterations provided by Scrum enable companies to quickly adapt to market changes, improve product quality, and meet customer needs. Additionally, Scrum cultivates a culture of continuous improvement, allowing teams to constantly evolve and refine their processes. The key factors for successful Scrum implementation include the formation of cross-functional teams, the delegation of authority, transparent communication, and leadership support. The use of modern management tools and continuous skills enhancement will contribute to reducing risks and improving team performance.

Researcher D.J.C. Sihombing (2024) proposed a different perspective on the use of the Agile Scrum methodology. The conducted study demonstrated the effectiveness of applying Agile Scrum for the development of Business Intelligence (BI) in a freight company. It was shown that clear planning and the identification of key BI functions are important at the initial stage. The use of Agile Scrum in development allowed for delivering value in stages, thereby enhancing the adaptability and quality of the BI solution. Testing played a decisive role in ensuring product quality and correcting errors. The scientific paper provided practical recommendations and empirical evidence of the benefits of using Agile Scrum to improve the efficiency of BI development.

J. De Souza Pinto & R. Da Silva Leme (2024) study showed that the partial and incorrect application of Scrum in a public organisation led to products that did not meet stakeholder expectations. Role overload, frequent redistribution of team members, and a lack of coordination between stakeholders and the Product Owner negatively affected efficiency. Failure to adhere to Scrum rules, such as continuing a sprint after its completion, also reduced the potential benefits of the methodology. Insufficient updating of project management tools complicated inspections and the collection of reliable reports. The study emphasised the importance of strictly adhering to Scrum roles and events, as well as the need to update management tools to ensure transparency and adaptability.

C. Mbonigaba *et al.* (2024) research once again emphasised that Agile project management is a dynamic approach that enhances collaboration, adaptability, and accelerates product development. However, companies face challenges in its implementation, such as resistance to change and insufficiently qualified personnel. For the successful implementation of Agile, it is recommended that companies invest in training, apply change management strategies, and adapt Agile for large projects. The recommendations also include investing in comprehensive Agile training programs, adopting change management strategies to overcome resistance, and adapting Agile for large-scale implementations, such as SAFe. Implementing these strategies will allow companies to effectively use Agile to drive innovation and improve efficiency.

Research by H. Shraddha & G. Nagaraj (2024) demonstrated that the Agile transformation of companies Spotify and Acme Software Solution led to increased agility and productivity, despite initial challenges such as resistance to change and communication issues. The success of their Agile implementation underscored its adaptability and advantages for organisations of various sizes. The Agile methodology transformed software development by emphasising adaptability, collaboration, and continuous improvement. This methodology contributed to the rapid release of products, enhanced product quality, and increased customer satisfaction. Agile enabled teams to quickly adapt to changing needs, prioritise value, and improve based on feedback. Clear communication and the empowerment for decision-making allowed these organisations to overcome challenges and succeed in complex business environment.

After reviewing the research of various scholars, the authors of the current study agree with them and consider their results valid regarding the effectiveness of applying Agile methodologies in various business sectors. Most researchers, like the authors of this study, have concluded that this methodology improves collaboration, adaptability, and accelerates product development. This indicates that the Agile approach has significant potential to enhance the operations of organisations across different economic sectors, but its implementation requires careful planning and adaptation to the specifics of each company. Agile is not a universal solution – it requires a flexible approach and consideration of individual characteristics.

## ● CONCLUSIONS

Having analysed and contemplated various worldviews during transitions between eras, it has been determined that companies' understanding of these models will enable them to navigate the modern world more effectively

## ● REFERENCES

- [1] 17th state of agile report. (2022). Retrieved from <https://is.gd/hn3mT5>.
- [2] Aghina, W., Ahlback, K., De Smet, A., Lackey, G., Lurie, M., Murarka, M., & Handscomb, C. (2018). *The five trademarks of agile organizations*. Retrieved from <https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/the-five-trademarks-of-agile-organizations>.
- [3] Agile transformation. From Agile experiments to operating model transformation: How do you compare to others? (2019). Retrieved from <https://assets.kpmg.com/content/dam/kpmg/be/pdf/2019/11/agile-transformation.pdf>.
- [4] AlHayek, S., Souib, S., Meechang, K., & Medini, K. (2024). Exploring Agile methods application in manufacturing. In *Advances in production management systems. Production management systems for volatile, uncertain, complex, and ambiguous environments* (pp. 48-60). Cham: Springer. doi: 10.1007/978-3-031-71637-9\_4.

and shape their future. Knowledge of the characteristics of these models will help identify challenges, develop strategies, enhance team skills, and better navigate the modern world in order to make more informed management decisions. The study conducted a comparative analysis of various agile project management methodologies. Key factors influencing the effectiveness of Agile were identified, and its advantages and disadvantages were examined. It was analysed and substantiated that the Agile methodology is an innovative tool for the effective management of companies in an unstable and unpredictable BANI world.

The research results showed that modern projects often use a hybrid approach that combines the best practices from various methodologies. The choice of a specific methodology depends on many factors, such as the size and complexity of the project, the team's level of experience, customer requirements, and the type of product. The optimal choice of methodology is determined by the individual characteristics of the project and the team implementing it. By analysing and systematising the practical experience of integrating flexible methodologies into the management processes of leading international companies, it was found that the vast majority of companies work with flexible methodologies. 81% of agile teams use a variant or a hybrid version of the Scrum methodology, with 66% using pure Scrum. Predominantly, these are software development departments (86%) and IT departments (63%) that implement flexible methodologies. However, this methodology is also gaining interest in other functional departments: manufacturing (29%), HR (16%), sales (11%), finance (10%), etc.

The characteristics of Scrum, Agile, and Kanban were reviewed, and an analysis of their differences was carried out. It was established that the vast majority of companies choose the flexible Scrum methodology – or its elements – for their needs. Therefore, it is proposed that companies use the flexible Scrum methodology in their management process as a tool to navigate the BANI world. The research findings indicate a significant lack of advancements in improving management theory and teamwork using flexible methodologies within the academic sphere, suggesting substantial potential for further scholarly research.

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- [5] Bardas, A., & Avramenko, O. (2023). Use of agile methodology to manage projects in banking organizations. *Economic Bulletin of Dnipro University of Technology*, 2(82), 93-102. doi: [10.33271/ebdut/82.093](https://doi.org/10.33271/ebdut/82.093).
- [6] Baskoro, G., Sarwono, E., Handajani, E.T., & Hendriana, D. (2024). Graduate study with online education in the post-pandemic era: An experiential case study. In *International conference on engineering management and sustainable innovative technology* (pp. 165-180). Malang: National Institute of Technology Malang. doi: [10.18502/kss.v9i10.15723](https://doi.org/10.18502/kss.v9i10.15723).
- [7] Bushuyev, S., Tykchonovych, J., Chernysh, O., Sukhonos, N., & Khalilov, A. (2024). Creative principles for managing innovation projects in BANI environment. *Management of Development of Complex Systems*, 57, 6-11. doi: [10.32347/2412-9933.2024.57.6-11](https://doi.org/10.32347/2412-9933.2024.57.6-11).
- [8] Chukwurah, E., & Aderemi, S. (2024). Elevating team performance with Scrum: Insights from successful U.S. technology companies. *Engineering Science & Technology Journal*, 5(4), 1357-1371. doi: [10.51594/estj.v5i4.1038](https://doi.org/10.51594/estj.v5i4.1038).
- [9] De Souza Pinto, J., & Da Silva Leme, R. (2024). Analysis of project management principles with the Scrum framework in systems development: A case study in a public organization. *Brazilian Journal of Operations and Production Management*, 21(2), article number 1878. doi: [10.14488/BJOPM.1878.2024](https://doi.org/10.14488/BJOPM.1878.2024).
- [10] Djurovic, A. (2023). 20+ astonishing Agile adoption statistics for 2023. Retrieved from <https://goremotely.net/blog/agile-adoption>.
- [11] Handscomb, C., Mahadevan, D., Schor, L., Sieberer, M., Naidoo, E., & Srinivasan, S. (2020). *An operating model for the next normal: Lessons from agile organizations in the crisis*. Retrieved from <https://is.gd/SHVRuG>.
- [12] Hassani-Alaoui, S., Cameron, A.-F., & Giannelia, T. (2020). "We use Scrum, but ...": Agile modifications and project success. In *Proceedings of the 53rd Hawaii international conference on system sciences* (pp. 6257-6266). Maui: ScholarSpace. doi: [10.24251/HICSS.2020.765](https://doi.org/10.24251/HICSS.2020.765).
- [13] How Amazon and Spotify used Scrum to change how they work. (n.d.). Retrieved from <https://alctraining.com.au/amazon-spotify-used-scrum-change-work/>.
- [14] Kovalchuk, N., & Komarova, K. (2023). Agile methods in team management. *Economics and Society*, 47. doi: [10.32782/2524-0072/2023-47-20](https://doi.org/10.32782/2524-0072/2023-47-20).
- [15] Krasteva, I. (2022). 8 examples of successful Agile companies. Retrieved from <https://businessmap.io/blog/agile-companies>.
- [16] Kremic, N. (n.d.) Why are Agile teams 25% more productive? Retrieved from <https://www.deltamatrix.com/why-are-agile-teams-25-more-productive/>.
- [17] Martini, A., & Bosch, J. (2016). A multiple case study of continuous architecting in large Agile companies: Current gaps and the CAFFEA framework. In *13th working IEEE/IFIP conference on software architecture (WICSA)*. Venice: IEEE. doi: [10.1109/WICSA.2016.3](https://doi.org/10.1109/WICSA.2016.3).
- [18] Mbonigaba, C., Sujatha, S., Dinesh Kumar, A., & Vasuki, M. (2024). The rise of agile methodologies in managing complex business projects: Enhancing efficiency, collaboration, and adaptability. *Indo American Journal of Multidisciplinary Research and Review*, 8(2), 69-77. doi: [10.5281/zenodo.13871832](https://doi.org/10.5281/zenodo.13871832).
- [19] McCreery, D. (2024). Google: Pioneering innovation with Agile methodologies. Retrieved from <https://www.linkedin.com/pulse/google-pioneering-innovation-agile-methodologies-david-mccreery-qax8e/>.
- [20] Mishra, B.M., Sahu, E., Bhuriya, K., & Dubey, T. (2024). Lean management intervention in BANI world with reference to IT industry (post COVID). *Educational Administration: Theory and Practice*, 30(5), 12819-12822. doi: [10.53555/kuey.v30i5.5389](https://doi.org/10.53555/kuey.v30i5.5389).
- [21] Morandini, M., Coleti, T.-A., Oliveira, E., & Pizzigatti Corrêa, P.-L. (2021). Considerations about the efficiency and sufficiency of the utilization of the Scrum methodology: A survey for analyzing results for development teams. *Computer Science Review*, 39, article number 100314. doi: [10.1016/j.cosrev.2020.100314](https://doi.org/10.1016/j.cosrev.2020.100314).
- [22] Moscoso-Zuñe, C., Zuloaga-Luna, V., Collao-Diaz, M., & Del Solar-Vergara, E. (2024). Service model based on lean service and Agile methodology to increase the NPS index in a company in the security sector. *Industrial Engineering and Industrial Management* (pp. 170-182). Cham: Springer. doi: [10.1007/978-3-031-56373-7\\_14](https://doi.org/10.1007/978-3-031-56373-7_14).
- [23] Nweder, N. (2024). *Applying Agile management to small businesses across industries: A study on small business companies from a perspective of work-integrated learning*. Retrieved from <https://www.diva-portal.org/smash/get/diva2:1904858/FULLTEXT01.pdf>.
- [24] Panditi, S. (2018). Survey data shows that many companies are still not truly agile. Retrieved from <https://hbr.org/sponsored/2018/03/survey-data-shows-that-many-companies-are-still-not-truly-agile>.
- [25] Pavliuk, T., & Polusmiak, L. (2024). Development of universal measures to improve the efficiency of the enterprise's personnel management system through the implementation of scrum technologies. *Management and Entrepreneurship: Trends of Development*, 3(29), 94-103. doi: [10.26661/2522-1566/2024-3/29-09](https://doi.org/10.26661/2522-1566/2024-3/29-09).
- [26] Povna, S. (2020). World experience in introduction of flexible management methodologies of enterprises and organizations competitiveness. *Problems and Prospects of Economy and Management*, 1(21), 63-71. doi: [10.25140/2411-5215-2020-1\(21\)-63-71](https://doi.org/10.25140/2411-5215-2020-1(21)-63-71).
- [27] Qureshi, T., & Amin, A. (2024). *Dynamic teaching pedagogy in the post-Covid BANI environment: Redefining the versatile role of teachers for effective learning outcomes in higher education institutes*. In *Higher education and sustainable development: Possibilities and challenges* (pp. 25-40). Jaipur: Sharda Global Research Publications.
- [28] Riabchykov, O., & Hanushchak-Yefimenko, L. (2024). The impact of iteration risk coefficient on the volatility of Scrum team work in the Scrum methodology. *Journal of Strategic Economic Research*, 25(1), 94-99. doi: [10.30857/2786-5398.2024.1.10](https://doi.org/10.30857/2786-5398.2024.1.10).



- [29] Salun, M., & Zaslavska, K. (2024). Strategies for resilience in a dynamic world: From VUCA to BANI. *Proceedings of Socratic Lectures*, 10, 185-189. doi: 10.55295/PSL.2024.123.
- [30] Schäfer, J. (2023a). 23 Agile statistics: How relevant are Agile frameworks? Retrieved from <https://echometerapp.com/en/agile-statistics/>.
- [31] Schäfer, J. (2023b). The 20+ most important Scrum statistics for 2023. Retrieved from <https://echometerapp.com/en/scrum-statistics/>.
- [32] Scrum vs Agile vs Kanban: What to choose? (2023). Retrieved from <https://campus.epam.ua/ua/blog/577>.
- [33] Shraddha, H., & Nagaraj, G. (2024). Adapting Agile methodology. SSRN. doi: 10.2139/ssrn.4945674.
- [34] Sihombing, D.J.C. (2024). Development of business intelligence in a cargo company using the Agile Scrum. *Jurnal Ekonomi*, 13(1), 2495-2503.
- [35] Success rates rise transforming the high cost of low performance. (2017). Retrieved from <https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pulse-of-the-profession-2017.pdf>.
- [36] The 11th annual state of agile report. (2017). Retrieved from <https://www.agile247.pl/wp-content/uploads/2017/04/versionone-11th-annual-state-of-agile-report.pdf>.
- [37] Vishwakarma, S.S., & Pandey, S.K. (2024). Agile transformation: Business strategies and best practices for VUCA and BANI world. *IntechOpen*. doi: 10.5772/intechopen.1006870.
- [38] What is Agile software development? Benefits of Agile. (2024). Retrieved from <https://blog.techliance.com/agile-software-development/>.
- [39] Yakut, B., & Çerasi, C. (2024). The relationship between the Scrum method and employee satisfaction. *WSEAS Transactions on Business and Economics*, 21, 2277-2290. doi: 10.37394/23207.2024.21.187.

## Гнучкі організації в епоху BANI: кейс-стаді компаній, що використовують Scrum

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**Анотація.** Глобалізація, технологічні прориви та непередбачувані події створили епоху, у якій традиційні підходи до управління втрачають ефективність. З 2020 року бізнес працює у світі BANI, де адаптивність стає ключовою перевагою. Метою даного дослідження було дослідити сучасні успішні гнучкі компанії та виявити доцільність запровадження методології Scrum в управлінський процес інших компаній. Під час проведення дослідження було використано методи: теоретичного узагальнення і порівняння (розкриття сутності SPOD, VUCA та BANI світів із фокусом на ключові характеристики), аналізу (зміни світу під впливом різних факторів, розкриття їх особливостей), статистичний (групування даних для знаходження відсотка використання гнучких методологій компаніями світу), абстрактно-логічний (сформульовано положення ефективності Agile, переваги та недоліки). Досліджено гнучкі методології на основі досвіду 10 компаній-лідерів у галузі гнучкості зі значними досягненнями в інноваціях та високою задоволеністю клієнтів. Розглянуто актуальні статистичні дані щодо використання методологій Agile, Scrum, Kanban та їх вплив на продуктивність компаній. Оцінено переваги Agile-підходів, зростання їхньої популярності серед світових компаній, а також ефективність впровадження гнучких методологій у різних галузях. Проаналізовано та систематизовано практичний досвід запровадження гнучких методологій в управлінський процес успішних міжнародних компаній, здійснено порівняльну характеристику різних гнучких методологій. На цій основі запропоновано ефективний інструмент для управління компаніями в нелінійному BANI-світі. Встановлено, що для досягнення результату компанії потрібен індивідуальний підхід, що потребує адаптації до конкретного контексту. Практичною цінністю дослідження стали систематизація та аналіз сучасного мінливого зовнішнього та внутрішнього бізнес-середовища компаній та надання на їх основі управлінському персоналу дієвого інструменту для подальшої навігації

**Ключові слова:** гнучкі методології; адаптація; управлінський процес; команда; фреймворк