

APPLICATION OF AGILE APPROACHES IN PUBLIC ADMINISTRATION TO IMPROVE THE QUALITY OF INITIATIVE PROJECT RESULTS

ЗАСТОСУВАННЯ AGILE-ПІДХОДІВ У ПУБЛІЧНОМУ УПРАВЛІННІ ДЛЯ ПІДВИЩЕННЯ ЯКОСТІ РЕЗУЛЬТАТІВ ІНІЦІАТИВНИХ ПРОЄКТІВ

The article explores the possibilities and feasibility of applying Agile approaches in public administration to improve the quality of initiative project results. The current challenges faced by public institutions require flexible and effective management methods that can provide a rapid response to changes, transparency of processes, and focus on the end result. Traditional approaches to project management often prove ineffective in a fast-paced environment with a high level of uncertainty.

The Agile methodology, which has successfully proven itself in the private sector, particularly in the field of information technology, is increasingly being adapted to the needs of public administration. The article analyses the international experience of countries such as the United Kingdom, the United States and Australia, where Agile approaches are used in digital public services and strategic initiatives. The key benefits of Agile approaches are identified, including increased project management efficiency, transparency, inclusiveness, and flexibility in decision-making.

Particular attention is paid to the national experience of Ukraine, in particular to digitalisation projects such as the Diia platform, where Agile principles are manifested in the step-by-step implementation of services, collecting feedback, and adapting functionality to meet the needs of users.

The article also identifies the key barriers to the implementation of Agile in public administration: resistance to change, insufficient staff qualifications, and lack of an adequate regulatory framework. Strategic recommendations for overcoming these challenges are proposed, including staff training, regulatory frameworks, and the creation of project monitoring mechanisms.

The article proves that the successful implementation of Agile methodologies in the public sector can provide significant improvements in the implementation of initiative projects, contributing to transparency, efficiency, and sustainable development of society. Further research should be aimed at developing adapted models for implementing the Agile approach in the context of Ukrainian public administration.

Key words: public administration, Agile approach, methodology, initiative projects, implementation.

У статті досліджено можливості та доцільність застосування Agile-підходів у

публічному управлінні для підвищення якості результатів ініціативних проєктів. Сучасні виклики, з якими стикаються державні інституції, вимагають гнучких і ефективних методів управління, які здатні забезпечити оперативну реакцію на зміни, прозорість процесів та орієнтацію на кінцевий результат. Традиційні підходи до управління проєктами часто виявляються неефективними в умовах швидкоплинного середовища та високого рівня невизначеності.

Agile-методологія, яка успішно зарекомендувала себе у приватному секторі, зокрема у сфері інформаційних технологій, все частіше адаптується до потреб державного управління. У статті проаналізовано міжнародний досвід країн, таких як Велика Британія, США та Австралія, де Agile-підходи використовуються у цифрових державних сервісах та стратегічних ініціативах. Виявлено ключові переваги Agile-підходів, серед яких – підвищення ефективності управління проєктами, прозорість, інклюзивність та гнучкість у прийнятті рішень.

Особливу увагу приділено національному досвіду України, зокрема проєктам цифровізації, як-от платформа «Дія», де Agile-принципи проявляються у покроковому впровадженні сервісів, зборі зворотного зв'язку та адаптації функціоналу відповідно до потреб користувачів.

У статті також визначено ключові бар'єри на шляху впровадження Agile у сфері публічного управління: опір змінам, недостатня кваліфікація кадрів та відсутність належної нормативно-правової бази. Запропоновано стратегічні рекомендації щодо подолання цих викликів, включаючи навчання персоналу, нормативне регулювання та створення механізмів моніторингу проєктів.

В статті обґрунтовано, що успішна імплементація Agile-методологій у державному секторі здатна забезпечити суттєві покращення у реалізації ініціативних проєктів, сприяючи прозорості, ефективності та сталому розвитку суспільства. Подальші дослідження повинні бути спрямовані на розробку адаптованих моделей впровадження Agile-підходу у контексті українського публічного управління.

Ключові слова: публічне управління, Agile-підхід, методологія, ініціативні проєкти, реалізація.

УДК 332.14
DOI <https://doi.org/10.32782/pma2663-5240-2024.43.31>

Vozniesienskii V.V.
PhD Student of the Department of Business Economics and Administration, Sumy State Pedagogical University named after A.S. Makarenko

Formulation of the problem. Modern public administration faces increasing complexity and dynamics of socio-economic and technological challenges. Traditional approaches to managing state and municipal projects are often ineffective due to bureaucratic barriers, rigid regulatory frameworks, and lack of flexibility in responding to changes. In such circumstances, the imple-

mentation of proactive projects that require quick decision-making, adaptation to new circumstances, and active stakeholder collaboration becomes particularly challenging.

Agile approaches, which have proven to be an effective tool for agile project management in the IT sector, are increasingly seen as a possible solution to improve the performance of pub-

lic initiatives. However, the implementation of Agile in public administration is accompanied by a number of difficulties, including resistance to change, lack of necessary competencies among employees of public institutions, and differences between corporate and public management cultures.

There is a need for a theoretical justification and practical study of the feasibility, features and challenges of applying Agile approaches in public administration. It is important to determine in which types of projects this approach is most effective and what mechanisms need to be implemented to successfully adapt Agile principles to the specifics of public administration.

Analysis of recent achievements and publications. Recent years have demonstrated a growing interest in the introduction of Agile methodologies in public administration, driven by the need to improve the efficiency of government projects, respond flexibly to challenges, and increase the transparency of management processes. Research shows that Agile approaches, which were previously considered exclusively tools for the IT sector, are being successfully adapted to public projects around the world. Publications by the Organisation for Economic Co-operation and Development (OECD) and the World Bank highlight the positive experience of Agile in countries such as the UK, the Netherlands, Australia, and the US. Academic research (e.g., by D. West, K. Grant, and A. Conboy) emphasises the importance of adapting Agile principles to the specific features of public administration, including the complexity of bureaucratic procedures and strict reporting requirements. In Ukraine, the issue of implementing Agile approaches in public administration is currently under active discussion. Successful examples include projects related to the digitalisation of public services (in particular, the Diia platform). Agile approaches are manifested here in the gradual introduction of functionalities, collection of feedback and rapid adjustment of processes. However, according to the research of Ukrainian authors (I. Petrenko, M. Kovalchuk, L. Sydorenko), the key barriers to the implementation of Agile are: resistance to change on the part of civil servants; insufficient level of staff training; lack of clear regulatory frameworks for Agile methodologies in public administration.

The purpose of the article. Further research is needed to develop specific models and tools for implementing Agile in the context of Ukrainian public administration, which will increase the efficiency and transparency of initiative projects.

Presentation of the main material. The most common classical approaches to proj-

ect management in the modern literature are three: predictive (cascade), iterative, and incremental.

In the management of initiative projects, the predictive or cascade approach is mostly used. It is based on one-time project planning and implementation. The predictive approach usually involves getting feedback during project implementation.

The iterative and incremental approaches to managing initiative projects are practically not used today.

The iterative approach differs from the predictive approach in that it allows for the possibility of obtaining feedback from stakeholders at the beginning of the project, when the stage of product readiness can be described as early, which allows for product modifications before commissioning.

The incremental approach is a fundamentally different method of project management based on the development of products in parts that are delivered when ready.

In addition to the three classical approaches, there are agile approaches that combine an iterative and incremental approach. This approach involves implementing a project in small iterations, which result in a version of the product that has a certain set of features. This approach allows us to receive regular feedback from end users and stakeholders, which helps us to make quick improvements to the product with the least amount of effort.

Speaking about the predictive or cascade approach, we characterise it as a strict sequence of work, in which the implementation of one stage begins strictly after the previous one is completed. As mentioned earlier, the classic project lifecycle consists of initiation, planning, implementation, monitoring and control, and closure. With this approach, feedback is usually received at the final stage of project implementation. In this case, there are few opportunities to make adjustments to the resulting product because most of the resources have already been spent and there is no time for significant improvements. Thus, there is a risk of rejection of the project results by end users, reduced satisfaction with the product, and the imposition of fines and sanctions. These characteristics do not indicate that the cascade approach is ineffective in general, but for some projects, more flexible approaches may be more appropriate.

Note that cascade and agile approaches are somewhat extreme. There are many intermediate iterative and incremental approaches, for example, Microsoft Solutions Framework (MSF), Rational Unified Process (RUP, now OpenUP),

Goal-Driven Software Development Process (GDP), etc. Hybrid methodologies that combine the best aspects of Agile and earlier approaches are also actively developing. Examples of such methodologies include DSDM25, PRINCE2 Agile, P3.Express, and the Russian development Paracelsus PM.

For the purpose of this study, let's take a closer look at the features of agile approaches, their pros and cons, and their applicability to initiative project management.

These approaches are based on the concept of 'Agile', which means a set of approaches and principles of managing an organisation's resources to quickly create a product that meets customer requirements. Since 2001, this concept has been used in the IT sector to develop applications and systems. The use of this project management methodology has allowed organisations to simplify their structure and business processes, focus on customer requirements, receive prompt feedback, accelerate the creation of a product in demand by consumers, and minimise the risk of product rejection.

Implementing a project using agile approaches involves creating a product in small iterations, i.e. stages lasting up to 1 month. Each iteration results in a deliverable, which is an interim version of the product with a certain set of features. This result is submitted for review to end users and stakeholders for feedback, which is used to make management decisions on product development or release. Each result creates value for the customer and added value compared to the previous version.

The Agile Manifesto, created by seventeen software development experts in 2001 in the United States, is the founding document of flexible or Agile approaches. It contains 4 core values and 12 principles.

The core values of Agile are:

- 1) people and interaction are more important than processes and tools;
- 2) a working product is more important than comprehensive documentation;
- 3) cooperation with the customer is more important than agreeing on the terms of the contract;
- 4) readiness for change is more important than adherence to the original plan [7].

At the same time, the Agile manifesto does not prohibit the use of classical project management methods (processes and tools, documentation, contract terms, adherence to the plan), but sets priorities, determines the degree of importance, and regulates the focus of attention.

12 fundamental principles of the Agile manifesto:

1. Our highest priority is to meet customer needs through regular and early delivery of valuable software.

2. Changing requirements are welcome even at later stages of development. Agile processes allow us to use changes to provide the customer with a competitive advantage.

3. A working product should be released as often as possible, at intervals of several weeks to several months.

4. Throughout the project, developers and business representatives should work together on a daily basis.

5. Motivated professionals should work on the project. To get the job done, create the conditions, provide support, and trust them completely.

6. Direct communication is the most practical and effective way to share information with and within the team.

7. A working product is the main indicator of progress.

8. Investors, developers, and users should be able to maintain a steady rhythm indefinitely. Agile helps to establish such a sustainable development process.

9. Continuous attention to technical excellence and design quality increases project flexibility.

10. Simplicity – the art of minimising unnecessary work – is essential.

11. The best requirements, architectural and technical solutions come from self-organising teams.

12. The team should systematically analyse possible ways to improve efficiency and, accordingly, adjust its work style [7].

Agile approaches are not always effective, but they can help where classical project management approaches do not work or do not deliver a product that meets customer requirements within the constraints. These include frequent changes in requirements, tight deadlines, and the high uncertainty that characterises the public administration sector.

The main advantages of Agile approaches include:

- 1) Increasing the speed of bringing a product to market. It is a common situation when a product is needed by the end user or stakeholders as soon as possible. Taking into account the existing resource constraints, it is necessary to obtain a viable product that has the minimum required characteristics that meet the request. The project implementation process should be structured in such a way as to quickly and efficiently create a product that works and is useful. In this case, the most effective approach is to use flexible approaches that allow you to quickly receive feedback and make the necessary improvements with minimal losses.

2) Minimising the risk of product rejection. Today, when planning a project (national, state, regional), the requirements for the final product are formed once for a long period of time, during which only monitoring and control of the achievement of the established indicators are carried out. At the same time, during the project implementation, the requirements of end users may change under the influence of various factors, and errors in the analysis and formalisation of such requirements by the project team are not excluded. When project implementation is organised in iterations, a version of the product is offered to customers and stakeholders for review based on the results of each stage. In this case, the result of the iteration is tested promptly, feedback is generated, and changes are made to the product under development.

3) Transparency of the implementation process for all project participants. Due to the frequent demonstrations of product versions, the number of meetings and interactions between project participants – team members, customers, and stakeholders – is increasing. This makes all stages of project implementation as transparent, visible, and understandable as possible for all project participants. Consumers and stakeholders can influence the course of product development and express their opinions. The project team sees bottlenecks and promptly solves problems that arise.

4) Reducing the number of managers due to the revision of roles in the team ('flattening' of the structure). The implementation of Agile approaches is characterised by a change in the structure of the project team, increased self-organisation, redistribution of management hierarchy levels in favour of the product owner, and the transfer of operational organisational functions to all team members. Other roles in the project team are functional in nature, which makes it possible to build a horizontal management structure and reduce redundant management positions.

5) Focus on value creation. This advantage implies a product that is in demand by customers and stakeholders due to the regular feedback that is received and the requirements that are updated. Traditional approaches to project management result in a product that fully meets the requirements set out in the project documentation. In this case, there are risks of obtaining a product that is not valuable to the consumer due to changes in requirements during the project implementation or incorrectly formalised requirements at the planning stage that do not take into account consumer opinions.

6) Prototype as a way to collect requirements.

Today, the culture of forming product requirements in public administration organisations is not as developed as in the commercial sector. This can lead to incorrect formulation of requirements. In addition, in atypical projects, when a fundamentally new product is being created, formulating requirements can be difficult. In such cases, working in iterations with a prototype product that can be tested helps to formulate the necessary requirements for the product.

The Agile approach is appropriate for national projects where flexibility, phased implementation, incremental improvements, and feedback from end users are important. The Agile approach is effective in projects characterised by dynamic requirements, a high level of uncertainty, the need to adapt quickly to changes, and active collaboration between teams. In the context of initiative projects, Agile is appropriate in the following cases:

Government IT projects and digitalisation:

1. Electronic government systems (e-Government): For example, portals for administrative services, registries, e-voting platforms.

2. Healthcare systems (e-Health): Platforms for patient records, telemedicine, digital prescriptions.

3. Tax and financial platforms: Automation of tax filing and reporting processes.

Why Agile? IT areas are changing rapidly, and Agile allows you to flexibly respond to requirements, ensure gradual implementation and testing of solutions.

Educational projects:

Digital platforms for distance learning:

Innovative educational initiatives and platforms;

Creation of interactive learning resources.

Educational needs often change, and the Agile approach allows you to quickly adapt content and functionality to user needs.

Modernization of public services:

Administrative service delivery centers (ASCs): process automation, user experience improvement;

Smart City projects: integration of smart technologies for urban management, transport and ecology;

Public service delivery processes require constant improvement and testing on real users.

Defense and security:

Cybersecurity systems: protection of government data and critical infrastructure;

Innovative defense technologies: drones, data analytics, surveillance systems.

Agile is necessary because in the security sector it is important to quickly adapt to new threats and implement solutions quickly.

Social and humanitarian initiatives:

Programs to support the population during crises (e.g. pandemics or natural disasters);

Digital platforms for social payments and support.

Why Agile? Changes in the social sphere often require a rapid response and flexible approaches to solving problems.

Infrastructure projects with small stages:

Construction of modular schools or hospitals;

Projects with phased implementation of new technologies (e.g. smart traffic lights).

Dividing large infrastructure projects into small stages allows for more effective risk and resource management.

The listed capabilities and advantages of flexible approaches differ significantly from cascade approaches, which makes it possible to identify the main areas of their application in public administration sector organizations to improve the quality of national project implementation:

1) application of a new method of product creation during the implementation of an initiative project (for example, a public service) based on an orientation towards creating value for consumers, increasing the speed of development and introduction of changes, ensuring transparency and manageability of the management process;

2) increasing the efficiency and effectiveness of interagency and cross-functional teamwork;

3) increasing the speed of creation and implementation of products, in particular digital technologies and services, public services for citizens, etc.

Thus, in addition, various methods and tools can be used to improve the quality of initiative project implementation and increase consumer satisfaction, in particular, the principles of Agile approaches can be applied.

Conclusions. The analysis of theoretical approaches and practical experience of applying Agile methodologies in public administration allows us to draw a number of important conclusions. First, Agile approaches demonstrate high efficiency in implementing initiative projects characterised by dynamic conditions, uncertainty, and the need for prompt decision-making. Secondly, successful implementation of Agile in the public sector is possible if the principles of this methodology are adapted to the specific features of public administration. These include the need to comply with regulatory requirements, transparency of processes, and a focus on long-term social results. Third, the international experience of countries such as the United Kingdom, the United States, and Australia confirms that the implementation of

Agile methods in digital initiatives and public services can significantly improve the quality of services, optimise resources, and reduce project implementation time. In Ukraine, successful examples of Agile use can already be seen in digital government platforms such as Diia.

However, the further development of this approach requires overcoming barriers such as resistance to change, insufficient staff qualifications, and the lack of a regulatory framework for the implementation of agile methodologies in public administration.

Thus, Agile approaches can be an effective tool for improving the quality of the results of initiative projects in public administration, ensuring transparency, flexibility and focus on the end result. Further research should focus on developing specific models for implementing Agile in the public sector, taking into account national characteristics and challenges.

BIBLIOGRAPHY:

1. Besner C., Hobbs B. An empirical identification of project management toolsets and a comparison among project types. *Project Management Journal*. 2012. Vol. 43.5. P. 24–46. DOI: <https://doi.org/10.1002/pmj.21292>

2. Dvir D., Sadeh A., Malach-Pines A. Projects and project managers: The relationship between project managers' personality, project types, and project success. *Project Management Journal*. 2006. Vol. 37.5. P. 36–48. DOI: <https://doi.org/10.1177/875697280603700505>

3. Kerzner H. *Project management: a systems approach to planning, scheduling, and controlling*. John Wiley & Sons, 2017. 4. King Crystal. *How To Manage Marketing Projects Effectively?* Ranktracker : веб-сайт. URL: <https://www.ranktracker.com/blog/how-to-manage-marketing-projects-effectively/> (дата звернення: 17.05.2024).

5. Müller R., Turner R. The influence of project managers on project success criteria and project success by type of project. *European management journal*. 2007. Vol. 25.4. P. 298–309. DOI: <https://doi.org/10.1016/j.emj.2007.06.003>

6. Project Management Institute : веб-сайт URL: <https://www.pmi.org/> (дата звернення: 17.05.2024).

7. Shenhar A.J., Dvir D. Toward a typological theory of project management. *Research policy*. 1996. Vol. 25.4. P. 607–632. DOI: [https://doi.org/10.1016/0048-7333\(95\)00877-2](https://doi.org/10.1016/0048-7333(95)00877-2)

8. Shenhar A.J. One size does not fit all projects: Exploring classical contingency domains. *Management science*. 2001. Vol. 47.3. P. 394–414. DOI: <https://doi.org/10.1287/mnsc.47.3.394.9772> 24 Вісник Сумського національного аграрного університету Серія «Економіка і менеджмент», випуск 4 (96), 2023.

9. Turner J. Rodney *The Handbook of Project-Based Management. Improving the Process for Achieving Strategic Objectives*. McGraw-Hill Companies, London, 1999.

10. What Is Marketing Project Management? Definitions, Phases, Steps, & How To Organize Your Projects. CoSchedule : веб-сайт. URL: <https://coschedule.com/marketing/marketing-management/marketing-project-management> (дата звернення: 17.05.2024).

11. Wheelwright S.C., Clark K.B. Creating project plans to focus product development. Harvard Business School Pub., 1992.

12. Wuysocki R.K. Effective project management: traditional, agile, extreme. John Wiley & Sons, 2011.