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Agile management as a catalyst for transforming educational administration

Abstract. The aim of this study was to examine the potential of Agile management as a tool for transforming educational management. The research analysed the impact of Agile approaches on the organisation of the educational process and management practices in higher education institutions. The methodology involved a comparative analysis to assess the effectiveness of Agile management implementation in education, as well as a SWOT analysis to identify the strengths, weaknesses, opportunities, and threats associated with this approach. The key findings indicated that adopting Agile management enhances flexibility in educational project management, reduces decision-making time, and improves communication among all participants in the educational process. The implementation of Agile approaches has enabled educational institutions to respond more swiftly to curriculum changes, adapt to new technologies, and align with labour market demands. Additionally, the study found that the use of Agile methods positively influenced the motivation of both students and teachers, fostering a more open and collaborative learning environment. Students reported increased engagement in learning, while teachers experienced improved interaction with students, leading to greater satisfaction with the educational process. The findings highlighted the significant potential of Agile management in enhancing the efficiency of higher education institution management. Further improvement and adaptation of these practices to the specific conditions of educational institutions will support the sustainable development of education in the future. This study reinforces the importance of developing new management strategies to optimise the organisation of the educational process, enhance student satisfaction, and promote the innovative development of educational institutions

Keywords: leadership in the educational environment; digital transformation of universities; development of academic potential; management of innovative projects; education quality control system

Suggested Citation:

Kotsur, V., Zlenko, A., & Pshychenko, Ya. (2026). Agile management as a catalyst for transforming educational administration. *Scientia et Societis*, 5(1), 8-19. doi: 10.69587/ss/1.2026.08.

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INTRODUCTION

In the current context of higher education transformation, innovative management approaches are becoming key to ensuring the efficiency of educational institutions. Traditional management methods often fail to address the new challenges arising from rapid changes in the educational environment and the evolving demands of the labour market. Agile management, originally developed for the IT industry, is gradually gaining traction in the management of educational institutions due to its capacity to adapt swiftly to change and enhance the flexibility of management processes. Continuous feedback and ongoing improvement enable educational institutions to respond more effectively to the needs of students and employers, optimise educational processes, and enhance the quality of educational services. This approach also fosters student engagement in the learning process and improves interactions among all participants within the educational environment.

Numerous contemporary scholars have explored this topic, offering diverse perspectives. For instance, E. Boti *et al.* (2021) highlighted that developing skills through Agile capstone projects allows students to apply theoretical knowledge in practice, which is a crucial aspect of professional preparation. Similarly, A. Cojocaru *et al.* (2022) examined the impact of Agile management in physical education, noting that the implementation of Agile approaches can enhance learning outcomes and student engagement. The application of Agile management in higher education is expanding, demonstrating considerable potential for improving both learning processes and management practices. K. Abang *et al.* (2022) proposed a document management system for private higher education institutions, underscoring the importance of integrating technology to optimise administrative functions and enhance access to educational resources. Furthermore, H. Jamal Al-Lail & E. Mohamed (2019) emphasised the significance of innovation in higher education; however, the impact of flexible approaches on the quality of the educational process across different institutions remains insufficiently explored.

L. Dong (2023) emphasised the importance of incorporating client projects to develop Agile competencies, indicating that such projects contribute to the acquisition of practical skills and better prepare students for real-world challenges. Additionally, D. Francis (2022) analysed the Agile paradigm in the context of the organisational development of higher education institutions, stressing that Agile management methods enable universities to adapt more rapidly to environmental changes. The study by P. Ivetic & J. Ilic (2020) argued that project management based on Agile principles can significantly modernise higher education institutions, highlighting the necessity of training educators in Agile methodologies. Furthermore, V. Kate *et al.* (2023) underscored the importance of employing Agile methodologies in the development of educational software, though the question of full integration into the educational process remains unresolved.

R. Jardim *et al.* (2023) examined collaboration within a virtual learning environment using Agile practices, demonstrating the potential of Agile methods in fostering teamwork in distance learning. Likewise, M. Levy *et al.* (2021) emphasised that Agile methods can be instrumental in developing students' digital skills, which are critically important in today's technological landscape.

A study by V. Duarte *et al.* (2021) examined the implementation of Agile methodologies in the educational process for engineering students. The researchers' findings indicated that such approaches positively influence the development of teamwork skills; however, the extent to which Agile principles are fully integrated into education remains an open question. M. Fernandez *et al.* (2020) investigated the application of Agile methodologies in instructional design, focusing on enhancing students' digital competencies. Similarly, B. Lalic *et al.* (2021) explored the integration of game elements in education within the framework of Agile methodologies. Additionally, A. Lopez-Alcarria *et al.* (2019) conducted a systematic review of the use of Agile methods, with a particular emphasis on fostering sustainable competencies. The researchers highlighted the importance of embedding sustainable development into curricula, yet the effectiveness of such approaches across different educational institutions remains insufficiently explored.

Although the aforementioned studies highlight key aspects of Agile management implementation in higher education, several questions remain that require further investigation. In particular, the impact of Agile approaches on the development of students' professional skills remains insufficiently explored. Additionally, it is crucial to examine the effectiveness of Agile methods across different academic disciplines, as outcomes may vary significantly depending on the nature of the curriculum. Moreover, the influence of Agile management on collaboration between teachers and students, as well as its effects on motivation to learn in an environment of constant change, remains a pertinent issue. Furthermore, existing research has largely overlooked the cross-cultural dimensions of implementing Agile methods in educational processes, which is becoming increasingly significant given the globalisation of higher education and the growing diversity of the student body. Questions also persist regarding the long-term implications of Agile approaches for academic success and the professional development of graduates. This underscored the need for further research and continuous monitoring to evaluate the effectiveness of these innovations in higher education. The aim of this study was to assess the implementation of Agile management in the transformation of higher education management. Research objectives were (1) to investigate the core principles of Agile management; (2) to examine current management trends in higher education institutions; (3) to evaluate the advantages and disadvantages of applying Agile management in educational institutions.

MATERIALS AND METHODS

The study was conducted using statistical methods, comparative analysis, and SWOT analysis. It was carried out at the Hryhorii Skovoroda University in Pereiaslav in 2024 to assess the effectiveness of Agile management in the administration of educational processes. The study involved 60 respondents, comprising 30 students and 30 teachers. Among the students, there were 15 men and 15 women, aged between 18 and 24. The group of teachers included 16 men and 14 women, aged between 30 and 55. The respondents were divided into two groups: an experimental group and a control group. The experimental group consisted of 15 students and 15 teachers who applied Agile management principles. The control group, also comprising 15 students and 15 teachers, continued to operate within the traditional management framework typical of higher education institutions. Throughout the study, fundamental ethical standards were upheld. All respondents participated voluntarily and were fully informed about the study's purpose and objectives. Prior to the experiment, they provided written consent to participate. Anonymity and confidentiality were ensured to protect the participants' personal information, and all data were used exclusively for scientific purposes. Moreover, all forms of discrimination or bias based on gender, age, or other characteristics were strictly avoided.

The implementation of Agile management in the experimental group involved the use of flexible planning methods, regular meetings (stand-ups) to discuss progress, rapid task adjustments, and the active participation of both teachers and students in decision-making. Students and teachers collaborated to solve tasks using Agile tools, including Scrum and Kanban, to manage processes. In contrast, the control group followed a standard hierarchical management system, where decisions were made by the institution's administration, and students carried out tasks according to fixed plans. The study lasted for one semester, after which the results of the two groups were compared. The primary evaluation indicators included the level of student engagement, teacher satisfaction with the educational process, flexibility in decision-making, and the overall effectiveness of management processes. The results indicated that participants in the experimental group reported improved communication, a faster response to changes, and greater flexibility in completing tasks. Teachers in this group observed an increase in student involvement in decision-making processes and a reduction in bureaucratic obstacles. To evaluate the implementation of Agile management in the administration of educational processes a SWOT analysis was conducted. This method enabled the systematisation of data concerning the strengths and weaknesses, as well as the opportunities and threats, associated with the transition to Agile management. The SWOT analysis facilitated the identification of key factors influencing the effectiveness of management practices in a higher education institution.

RESULTS

Theoretical foundations of Agile management in the administration of educational institutions

In the context of globalisation and rapid technological advancement, higher education institutions must quickly adapt to change to remain competitive in the educational market. Traditional management approaches in higher education often lack the necessary flexibility to address emerging challenges posed by the evolving needs of modern society and the labour market. As a result, innovative management methods, such as Agile management, are gaining increasing recognition. Agile management enables institutions to respond swiftly to changes, implement innovations effectively, and enhance the efficiency of the educational process through flexible organisational approaches. The study of this approach within higher education is particularly relevant, as it presents new opportunities for improving management quality, strengthening communication among stakeholders in the educational process, and developing more adaptive and competitive curricula.

Agile management is a modern approach to administration that emphasises flexibility, rapid adaptation to change, and continuous process improvement. Originally developed for the IT sector, this methodology has gradually been adopted across various industries, including higher education management. Agile management is founded on the principles outlined in the Agile Manifesto, created in 2001. Its primary objective is to foster effective collaboration among team members, enable swift responses to change, and deliver maximum value to end users. One of Agile's core values is a strong focus on people and interactions. The approach prioritises not only the achievement of final outcomes but also the process through which teams work to attain these results. Direct communication, teamwork, and trust among team members facilitate the rapid resolution of issues, particularly in responding to new challenges that arise during project implementation. Another fundamental principle of Agile is adaptability. Agile management enables teams to adjust swiftly to both external and internal changes, moving away from rigid plans while anticipating the need for modifications in workflows. This adaptability is especially relevant in higher education institutions, where shifts in educational programmes, student requirements, or labour market demands can occur unexpectedly. Compared to traditional management approaches, Agile management allows educational processes to be adapted more efficiently to new conditions and emerging needs.

Agile principles also place a strong emphasis on feedback and continuous improvement. This approach involves the regular review of processes and outcomes, enabling ongoing enhancements rather than waiting until a project is completed. In the context of higher education institutions, this may involve systematically evaluating curricula, teaching methods, and administrative processes with the aim of continuous development and refinement. A key consideration is how Agile management principles can be effectively implemented in the administration of higher

education institutions. The application of Agile principles in this sector presents new opportunities for enhancing the efficiency of both administrative and educational processes. Rather than relying on a traditional hierarchical management structure, Agile promotes a more flexible model that facilitates rapid adaptation to changes in both internal and external conditions. This adaptability is particularly crucial for higher education institutions, as they frequently encounter evolving challenges, including shifting labour market demands, technological advancements, emerging pedagogical approaches, and changing student expectations.

One of the key features of Agile in education management is its capacity to facilitate the rapid review and updating of curricula. Traditional educational models often follow a rigid structure, which does not always allow for swift modifications to course content or teaching methods. In contrast, the Agile approach promotes short cycles of review and curriculum adjustments based on regular feedback from students and the labour market. This ensures a more relevant and contemporary education that aligns with current societal and professional needs. Another significant feature of Agile management is its enhancement of communication among various stakeholders in the educational process, including administration, teachers, and students. Agile encourages the formation of small yet highly effective teams, in which each participant plays an active role in decision-making. In higher education institutions, this can translate into greater involvement of teachers and students in the development of new courses, programmes, or research projects. Such an approach not only strengthens communication but also fosters the emergence of innovative ideas and solutions that might otherwise be overlooked within a traditional hierarchical structure. Agile tools, such as daily meetings, short planning cycles, and continuous improvement mechanisms, can be seamlessly integrated into the educational process to enhance its effectiveness. For instance, regular meetings between teachers, administration, and students can serve as an efficient platform for discussing current challenges, resolving issues promptly, and improving the educational process in real time.

The implementation of Agile management in the administration of educational institutions not only enables the adaptation of processes to changing conditions but also significantly enhances the efficiency of both administrative and educational activities. One of the primary advantages of this approach is the acceleration of decision-making processes. In traditional management models, the approval of new courses or programmes can be slow and bureaucratic. Agile methodology helps to reduce these timeframes by focusing on fast and flexible cycles of planning and implementing changes. This is particularly important for institutions seeking to remain competitive and relevant amid the rapid advancement of new technologies and evolving labour market demands. Another key advantage is the improvement of communication among all stakeholders in the educational process. Agile is centred on open dialogue and continuous feedback, ensuring that the needs and

perspectives of students, teachers, and administrators are taken into account. As a result, educational institutions can better respond to student expectations, integrate modern teaching methods, and offer more personalised approaches to educational programmes. This flexibility leads to curricula that are more adaptable to contemporary requirements, ultimately increasing the satisfaction of both students and teachers. Agile management fosters a more dynamic and responsive education system. In today's rapidly changing world, the ability to swiftly adapt to new realities is a critical advantage, and Agile facilitates this through its flexible methodologies. Higher education institutions that embrace Agile principles can more effectively restructure management processes, reorganise curricula, and enhance interactions with both teachers and students.

Despite the numerous benefits that Agile management offers to higher education, it is not a one-size-fits-all solution for all institutions. Its implementation may present certain challenges that must be carefully considered when introducing such changes. While Agile management can significantly enhance the flexibility and efficiency of educational processes, adapting it to traditional higher education structures can be complex. One of the primary challenges is the lack of experience among teachers and administrators in applying this approach. Most educational institutions operate under well-established procedures and management models that do not readily accommodate rapid changes in plans and approaches. Implementing Agile requires managers and staff to undergo a substantial shift in mindset and organisational culture, a transition that may not always be met without resistance. Traditional management systems in educational institutions are typically based on hierarchical structures, where decisions are made at higher levels and passed down through the organisation. Agile, by contrast, promotes more horizontal management structures, granting teams greater autonomy in decision-making. This shift can lead to conflicts in institutions where staff are unaccustomed to making independent decisions or lack the necessary skills to work effectively in such an environment.

Another challenge is the substantial resources required to implement Agile methodologies. Despite the inherent flexibility of this approach, its adoption may necessitate additional financial and human resources. Staff training, the introduction of new technological solutions for process management, and the adaptation of infrastructure to meet new requirements can impose significant costs on higher education institutions. For some institutions, these financial and logistical demands may act as barriers to the adoption of Agile management. Furthermore, Agile requires continuous feedback and close interaction among all participants in the process, which can be particularly challenging in large universities with numerous students and faculty members. Ensuring transparent communication and regularly updating processes in such environments may prove difficult, especially if the institution lacks the necessary tools or experience in implementing Agile methodologies.

The role of Agile management

in the innovative development of the educational process

To conduct a more detailed analysis of the implementation of Agile management in higher education institutions, a

comparative analysis was undertaken to evaluate the effectiveness of this innovative approach. As part of the study, data were collected on various aspects of Agile implementation. The findings of the study are presented in Table 1.

Table 1. Comparative analysis of the implementation of Agile management and a standard management system in a higher education institution

Evaluation indicators	Experimental group, implemented Agile management	Control group, standard management system
Management methods	Use of flexible planning, regular meetings (stand-ups), joint decision-making by teachers and students, Scrum, Kanban	Hierarchical management system, fixed plans, decisions are made by the administration, students complete tasks according to a pre-approved plan
Student engagement	High, students actively participated in decision-making, worked together with teachers to solve problems	Low, students followed given instructions without participating in the decision-making process
Teacher satisfaction	High, teachers noted increased student motivation and reduced bureaucratic processes	Average, teachers had limited influence on management processes, experienced bureaucratic difficulties
Flexibility in decision-making	High, due to the ability to quickly adjust tasks and make joint decisions	Low, decisions were made by the administration with minimal involvement of teachers and students
Efficiency of management processes	High, due to faster adaptation to changes, improved communication between process participants	Low, slow response to changes, limited communication between students, teachers and administration
Overall satisfaction with the process	High, participants noted improvements in communication processes and simplification of management tasks	Low, participants expressed dissatisfaction with the rigidity of the system and the lack of opportunity to influence decision-making

Source: authors' development

The implementation of Agile management in the experimental group led to improved communication, greater flexibility in decision-making, increased student engagement, and overall satisfaction with the management process compared to the control group, which adhered to the standard hierarchical model. Agile management in higher education institutions plays a significant role in fostering innovation, which has become a crucial factor in meeting modern requirements for educational programmes and research. Universities that actively apply Agile principles can respond more rapidly and effectively to changes in the educational environment, driven by continuous technological advancements and evolving labour market demands. One of the key advantages of Agile is its capacity to support short-term projects and an iterative approach, enabling universities to quickly test new ideas and concepts. This facilitates the rapid launch of innovative educational programmes that can be adapted based on feedback from students and teachers. For instance, new courses can be developed in close collaboration with employers, ensuring that training aligns with industry needs and remains practically relevant.

Agile approaches also encourage the formation of interdisciplinary teams, bringing together experts from diverse fields to develop new programmes and research initiatives. Such collaboration not only enhances the quality of education but also expands opportunities for innovation in research, as the integration of different perspectives and expertise fosters more creative solutions and outcomes. Moreover, Agile enables universities to implement

the principles of continuous improvement, ensuring that programmes are regularly updated based on feedback and assessment results. This approach enhances student satisfaction and provides them with higher-quality knowledge that aligns with contemporary professional and academic requirements. The implementation of Agile management can also drive the development of innovative technologies, such as online education, gamified learning, and the use of data analytics to enhance the educational process. By adopting Agile principles, higher education institutions can position themselves at the forefront of technological advancements, thereby increasing competitiveness in the global education market. Agile management not only supports the development of innovative educational programmes but also fosters a conducive environment for the active integration of new technologies and methodologies that align with contemporary market demands. This adaptability enables higher education institutions to respond swiftly to change, a crucial factor for the successful operation in an increasingly dynamic world.

Adapting Agile management to different forms of learning is a crucial aspect, as modern higher education institutions increasingly incorporate not only traditional face-to-face classes but also online education, blended learning, and other innovative formats. The flexibility of Agile enables universities to integrate this approach into various learning models, enhancing both their efficiency and accessibility. Online education, which has gained significant popularity, necessitates the adaptation of traditional teaching and management methods to new

conditions. Agile allows universities to respond swiftly to changes in student needs, offering them knowledge in a format that best suits preferences of students. For example, in the development of online courses, an iterative approach can be applied, allowing different content formats – such as video lectures, interactive modules, and discussion forums – to be tested and refined based on student feedback. Blended learning, which combines traditional face-to-face instruction with online formats, can also benefit from Agile principles. In this context, universities can design courses that integrate the best practices of both methods, ensuring a flexible and efficient learning process. Agile methodologies facilitate the structuring of blended learning in a way that enhances student interaction with both instructors and course materials. The use of technology to provide feedback and support collaborative projects can further aid students in mastering content while developing teamwork skills. Another significant advantage of Agile adaptation is the ability to rapidly introduce new technologies and tools into the learning process. The incorporation of gamification, artificial intelligence, or virtual reality elements into educational programmes can greatly enhance student engagement. Agile methodologies allow for the seamless integration of these technologies by testing them in small groups to evaluate their effectiveness before implementing them on a larger scale.

Adapting Agile to different learning environments also requires considering the individual needs of students. By applying Agile principles, educators can design personalised learning pathways that enable students to progress at a pace that best suits them. This can be achieved by allowing students to select topics of interest for deeper exploration or by forming self-organised teams to collaborate on projects. In this way, Agile fosters a more adaptive and student-centred learning environment. An essential aspect of integrating Agile into education is the creation of an open and supportive environment for idea exchange and feedback. Agile methods, such as regular meetings and feedback sessions, can enhance interaction between students and teachers, thereby improving the overall quality of learning and fostering the development of critical thinking skills. Thus, adapting Agile to diverse learning environments not only enhances the efficiency of the learning process but also makes education more accessible and tailored to individual student needs. This approach enables higher education institutions to respond effectively to the challenges of the modern educational landscape, equipping students with high-quality knowledge and skills that align with labour market demands.

The implementation of Agile management in higher education institutions serves as a powerful tool for enhancing the quality of education. The core principles of flexibility, teamwork, and continuous improvement underpin Agile and contribute to the development of a learning environment that aligns with both student needs and the demands of the modern labour market. Agile fosters a student-centred approach, which is fundamental to delivering

high-quality education. By employing Agile methods, universities can implement a more individualised approach to learning. Students are actively involved in shaping the educational pathways, selecting topics and formats that align with their interests and professional aspirations. This not only increases motivation but also facilitates deeper engagement with the subject matter, leading to improved comprehension and retention of knowledge. The Agile methodology also promotes continuous feedback between students and educators. Regular meetings, discussion sessions, and progress assessments enable teachers to respond promptly to students' challenges and adapt course content accordingly. This ensures that students receive timely support while enhancing the overall quality of learning, as educators can adjust programmes based on students' real-time needs as they emerge throughout the learning process. Furthermore, Agile approaches facilitate the integration of practical experience into educational programmes. For example, project-based learning enables students to engage with real-world challenges, allowing them to apply theoretical knowledge in practice. This not only enhances the skill set but also better prepares students for the professional challenges they may encounter in future careers. It is also important to highlight that the application of Agile in education can significantly reduce bureaucracy and formalism, which are often prevalent in traditional educational systems. By shifting the focus towards learning outcomes, institutions can move away from unnecessary formalities and concentrate on delivering high-quality education. This creates a more dynamic and productive learning environment in which students feel empowered to express thoughts and ideas freely.

In addition, Agile management fosters the development of teamwork and collaborative learning, which are essential aspects in the formation of key skills. Students learn to work effectively in groups, share knowledge and ideas, and enhance the ability to collaborate, think critically, and engage in creative problem-solving. These skills are particularly crucial in today's world, where teamwork is the norm and effective communication is fundamental to success. Agile management serves as a powerful tool for enhancing the quality of education in higher education institutions. Its principles contribute to the creation of a more flexible, adaptive, and student-centred learning environment that supports the development of essential skills and competencies in future professionals. Through the implementation of Agile, universities can significantly improve the quality of the educational programmes, ensuring they remain relevant, practically oriented, and aligned with contemporary professional demands.

Assessment of Agile management through SWOT analysis

To better assess the implementation of Agile management in the management of educational processes at the university, a SWOT analysis was conducted. It allowed us to identify key factors that affect the effectiveness of Agile management in an educational institution.

The results of the SWOT analysis are presented in Table 2, which systematizes the strengths and weaknesses,

opportunities and threats associated with the transition to Agile management.

Table 2. SWOT analysis of the implementation of Agile management in the management of educational processes

Strengths	Weaknesses
Flexibility in decision-making and rapid adaptation to changes in educational processes; Increased involvement of students and teachers in management decisions; Improved communication between all participants in the process; Reduction of bureaucratic obstacles; Use of modern tools for effective process management, such as Scrum and Kanban	Possible difficulties in implementing Agile management due to habituation to traditional hierarchical systems; The need for additional training of staff to work with Agile methods; High requirements for constant coordination and meetings; Lack of previous experience of working with Agile principles among teachers and administration
Opportunities	Threats
Increasing the efficiency of educational processes through flexible management; Ability to quickly respond to changes in the educational environment and labor market; Creation of an innovative educational model that attracts new students and teachers; Improving the image of the institution through the implementation of modern management technologies	Resistance from part of the staff accustomed to the traditional management system; Possible technical problems with the implementation of new management tools; Risk of slowing down processes due to insufficient training of the team for new methods; Dependence on the quality of communication tools for the implementation of Agile approaches

Source: authors' development

The SWOT analysis revealed that the implementation of Agile management has the potential to enhance flexibility, communication, and efficiency in educational processes. However, overcoming resistance to traditional management approaches and ensuring adequate staff training are essential for the successful adoption of Agile principles. An analysis of practical cases of successful Agile implementation in higher education institutions highlights that success depends not only on the proper adaptation of the approach but also on the development of effective implementation strategies. Understanding how to apply Agile within the specific context of a university or educational programme is a critical step in maximising its benefits. To successfully integrate Agile management into higher education institutions, it is essential to develop a well-defined implementation strategy that considers both organisational culture and the unique characteristics of the educational process.

The first step is to prepare staff for change. This involves providing training and professional development programmes for administrators, faculty, and even students, ensuring that all stakeholders understand Agile principles and can apply them effectively in their roles. Shifting mindsets and fostering a new organisational culture is a crucial initial stage in achieving the successful integration of Agile. As demonstrated by international examples, many challenges arise due to resistance to change or a lack of understanding of how the Agile approach functions. Therefore, it is important for universities to establish structured plans for the gradual adoption of Agile, incorporating phases of familiarisation with new methodologies and their progressive integration into both administrative and educational activities. Another key strategy is the formation of

small teams to initially test Agile methods in practice. This approach helps to avoid disruptive organisational changes while allowing institutions to assess the effectiveness of new methodologies through pilot initiatives. For example, Agile can be introduced in small project teams tasked with developing new courses or modernising existing educational programmes. If these teams achieve positive results, they can serve as exemplary models for other departments or faculties, facilitating a smoother transition to Agile management across the institution.

A crucial factor for the successful implementation of Agile is the establishment of regular monitoring and process adjustments. Agile strategies are based on continuous improvement through feedback, making it essential to implement mechanisms for ongoing evaluation and refinement. This may include regular team meetings where achievements, challenges, and potential solutions are discussed. Such an approach not only enables institutions to respond promptly to difficulties but also ensures maximum flexibility and efficiency in the Agile implementation process. Many universities that have successfully integrated Agile management utilise specialised project and team management tools, such as software platforms for organising daily meetings, planning tasks, and tracking progress. The adoption of such technologies enhances workflow organisation and ensures transparency in processes. A strategic approach to implementing Agile in higher education institutions involves several key stages: staff training, gradual testing on small-scale projects, continuous monitoring and process adjustments, and the use of technological tools to support Agile management. The systematic implementation of these steps will enable educational institutions to effectively integrate Agile management,

fostering high adaptability, innovation, and competitiveness in today's rapidly evolving educational landscape.

DISCUSSION

Agile management is a modern and dynamic approach that emphasises flexibility, adaptability, and active collaboration among all participants in the process. This methodology involves continuous monitoring and adaptation to change, making it highly effective in a rapidly evolving educational environment. Through regular meetings, rapid information exchange, and inclusive decision-making, Agile management fosters a more collaborative and participatory learning environment. In addition to enhancing the efficiency of management processes, this approach stimulates innovation in higher education. The study by J. Milićević *et al.* (2019) highlighted the significance of the Scrum Agile Framework in e-business project management, yielding results comparable to the results of the study. The researchers argued that the application of Agile methodologies enhances students' management skills, contributing to their professional development. The findings underscored the importance of student involvement in management processes, as this fosters the development of key competencies required in modern education.

The study conducted by A. Orsdemir *et al.* (2019) examined the role of influence in Agile management within the context of educational institution administration. The authors highlighted that the effective application of Agile methods can enhance interaction between administration and teaching staff. This aligns with the findings of the authors' study, which demonstrated that improved communication positively impacts both the educational process and administrative decision-making. However, the study also identified certain challenges associated with the implementation of Agile management. For instance, some educators expressed concerns regarding insufficient preparedness for change and the need for additional training. This observation is supported by S. Saleh *et al.* (2019), who emphasised the critical importance of professional development for teachers as a key factor in the successful adoption of Agile methodologies.

The SWOT analysis conducted as part of the research highlighted several strengths of Agile management, including its ability to facilitate rapid responses to change, enhance communication, and improve flexibility. However, it also identified weaknesses, such as resistance to change and a lack of training. These findings correspond with the work of P. Sarhadi *et al.* (2022), who noted that the implementation of Agile methodologies can be hindered by existing governance structures. The study conducted by G. Rivera & J. Zuleta (2023) highlighted the significant role of Agile methodologies in the management of higher education programmes. The findings supported the observation that the implementation of Agile can enhance the quality of educational projects and management strategies, ultimately leading to increased student satisfaction. However, it is crucial to consider the diversity of educational

contexts. J. Tapia *et al.* (2023) pointed out that the effectiveness of Agile implementation may vary depending on the specific characteristics of an educational institution. This underscores the importance of adopting an individualised approach to the adaptation of Agile methodologies across different universities.

The findings of the current study are also consistent with the conclusions of A. Sherstobitova *et al.* (2020), who examined the integration of Agile methodologies with Project Management Body of Knowledge (PMBOK) standards in educational institutions. The research suggests that the adaptation of modern management methods can significantly enhance the quality of educational activities in universities. Additionally, the results align with the work of D. Tamayo Avila *et al.* (2022), who introduced the ASEST+ concept to improve teamwork in Agile education. This further reinforces the idea that collaboration and teamwork are essential components for the successful implementation of Agile management in higher education institutions. The study conducted by T. Zhu & O. Ryzhkov (2021) also emphasised the importance of Agile methodologies in the planning of educational programmes. The scientists' findings aligned with the results of this study, demonstrating that Agile approaches in management can significantly enhance curriculum development and improve interaction among participants in the educational process. Similarly, O. Vitchenko & S. Shcherbakov (2022) addressed the challenges associated with educational and methodological activities in the context of digitalisation in education. This is a crucial consideration, as the findings suggest that Agile management can serve as an effective solution to these challenges by fostering a more adaptive and flexible educational environment.

As an innovative approach in higher education, Agile management has demonstrated its value by enabling rapid adaptation to change, increasing flexibility, and enhancing communication between stakeholders in the educational process. An analysis of the study results indicates that the use of Agile methodologies allows for a more responsive approach to student and teacher needs, strengthens communication across different levels of administration, and improves project management efficiency. These findings are consistent with the research of E. Boti *et al.* (2021), who highlighted the positive impact of Agile on skill development and collaboration within educational projects. Furthermore, this study found that Agile enhances the involvement of staff in decision-making processes within educational institutions. This finding aligns with the work of A. Cojocar *et al.* (2022), who reported improvements in educational organisations due to increased flexibility in management. However, the results also indicate that the successful application of Agile methodologies requires careful planning and adaptation to the specific characteristics of the educational sector, which can be a complex process. This challenge corresponds with the observations of D. Francis (2022), who noted that the implementation of Agile in universities requires sufficient time for adaptation and a shift in management culture.

One of the defining characteristics of Agile is its emphasis on people and teamwork, which is particularly significant in an educational environment where the interaction between teachers, students, and administration plays a crucial role in achieving successful outcomes. It is also important to note that the findings of this study revealed certain differences from those of V. Duarte *et al.* (2021), who examined the application of Agile in the context of engineering education and concluded that this approach is most effective in technical disciplines. In contrast, the results of the present study indicate that Agile can be successfully adapted to broader educational contexts, including the humanities. Furthermore, the study by L. Dong (2023) highlighted the importance of sustainability in Agile education, suggesting new avenues for further research, particularly in relation to integrating sustainable approaches into the educational process. This perspective aligns with the observed benefits of Agile in increasing student engagement and motivation by providing greater opportunities for independent decision-making and participation in management processes. As noted by M. Levy *et al.* (2021), such an innovative approach allows for the adaptation of education to the individual needs of each student, thereby enhancing learning effectiveness through the personalisation of teaching methodologies.

Overall, the findings of this study suggest that the implementation of Agile management in higher education has significant potential to enhance the educational process and increase student satisfaction. However, further research is needed to identify the most effective practices for implementing Agile across different educational contexts. By integrating the results of this study with the conclusions of other researchers, it can be argued that Agile management is not only an innovative approach in higher education but also a crucial tool for adapting to the challenges of modern education. For Agile to be successfully implemented, it is essential to consider the unique characteristics of each institution, the needs of its stakeholders, and the specific dynamics of the educational process. Future research should therefore focus on developing practical recommendations for universities aiming to integrate Agile methodologies, as well as exploring the impact of cultural factors on the success of their implementation.

CONCLUSIONS

The study found that the implementation of Agile management in the administration of educational processes at the university had a significant positive impact on both the quality of education and management practices. The research involved a comparative analysis of two groups: an experimental group, which applied Agile methods, and a control group, which adhered to a traditional management system. The findings indicate that participants in the experimental group reported enhanced communication, greater student engagement, and more efficient task completion. The use of Agile methods, such as Scrum and Kanban, facilitated the rapid adjustment of tasks and

encouraged active participation in decision-making. This increased flexibility in the educational process and enabled a prompt response to changes in the learning environment. Furthermore, students in the experimental group noted a rise in motivation and were more actively engaged in discussions on educational materials during regular meetings.

Teachers observed a reduction in bureaucratic obstacles and improved communication with students, which positively influenced the overall learning environment. Despite these promising results, the study has certain limitations. The duration of the experiment was restricted to one semester, which does not allow for a comprehensive assessment of the long-term effects of Agile management implementation. Additionally, the sample size may not have been sufficient to generalise the findings across the entire university. Moreover, as the study focused on a single educational institution, the ability to compare results with other universities that have adopted Agile methodologies remains limited. The findings of this study suggest that Agile management can serve as an effective tool for modernising the educational process. However, to enhance the reliability and applicability of these results, it is recommended that larger-scale studies be conducted across multiple universities to identify general trends and potential challenges in adapting Agile to diverse educational contexts. An important direction for further research is the examination of the impact of Agile management on the quality of education from the perspective of students enrolled in different modes of study, including full-time, part-time, and distance learning.

While this study demonstrates the feasibility of implementing Agile in educational processes, a comprehensive analysis of its effectiveness requires additional research that considers the diversity of educational environments and students' needs. Future research could focus on comparing different Agile methodologies within higher education, as well as analysing the tools and technologies used to support Agile management. It is essential to investigate how various Agile implementation strategies influence different aspects of the educational process, particularly in terms of learning quality, student satisfaction, and academic performance. As the education system continues to evolve, research into Agile management can play a significant role in shaping new approaches to teaching and the administration of educational processes. The successful adoption of Agile methodologies could serve as a model for other educational institutions seeking to modernise management practices, adapt to contemporary requirements, and enhance competitiveness in the educational services market. Therefore, it is crucial to continue exploring the opportunities and challenges associated with Agile management and to identify effective strategies for its implementation across different educational contexts.

ACKNOWLEDGEMENTS

None.

FUNDING

None.

CONFLICT OF INTEREST

None.

REFERENCES

- [1] Abang, K.I.R., Gatmaitan, D.L.V., Manalo, F., Torcelino, M.R., Rodriguez, R.L., & Serrano, E.A. (2022). CCT online request of students credentials: A document management system for private HIEs in the philippines. In *2022 2nd international conference in information and computing research (iCORE)* (pp. 25-29). Cebu: IEEE. [doi: 10.1109/iCORE58172.2022.00024](https://doi.org/10.1109/iCORE58172.2022.00024).
- [2] Boti, E., Damasiotis, V., & Fitsilis, P. (2021). Skills development through Agile capstone projects. In G. Succi, P. Ciancarini & A. Kruglov (Eds.), *Frontiers in software engineering* (pp. 97-112). Innopolis: Springer. [doi: 10.1007/978-3-030-93135-3_7](https://doi.org/10.1007/978-3-030-93135-3_7).
- [3] Cojocar, A., Cojocar, M., Jianu, A., Bucea-Manea-Țoniș, R., Păun, D., & Ivan, P. (2022). The impact of Agile management and technology in teaching and practicing physical education and sports. *Sustainability*, 14(3), article number 1237. [doi: 10.3390/su14031237](https://doi.org/10.3390/su14031237).
- [4] Dong, L. (2023). Strengthening sustainability in Agile education: Using client-sponsored projects to cultivate Agile talents. *Sustainability*, 15(11), article number 8598. [doi: 10.3390/su15118598](https://doi.org/10.3390/su15118598).
- [5] Duarte, V., Vidal, C., Contreras, S., & Cleveland-Slimming, M. (2021). Agile methodology and service-learning: Experience in engineering in information and management control students. In *2021 40th international conference of the chilean computer science society (SCCC)*. Chile: IEEE. [doi: 10.1109/SCCC54552.2021.9650424](https://doi.org/10.1109/SCCC54552.2021.9650424).
- [6] Francis, D. (2022). The Agile paradigm and organisation development in higher educational institutions. In *8th international conference on higher education advances (HEAd'22)* (pp. 833-840). Valencia: Valencia Polytechnic University. [doi: 10.4995/HEAd22.2022.14658](https://doi.org/10.4995/HEAd22.2022.14658).
- [7] Fernandez, M.G., Godoy Guglielmone, M.V., Mariño, S.I., & Barrios, W.G. (2020). Agility in instructional design. Strengthening of digital skills in incoming students at FaCENA-UNNE. In P. Pesado & M. Arroyo (Eds.), *Communications in computer and information science* (pp. 124-136). Cham: Springer. [doi: 10.1007/978-3-030-48325-8_9](https://doi.org/10.1007/978-3-030-48325-8_9).
- [8] Ivetic, P., & Ilic, J. (2020). Reinventing universities: Agile project management in higher education. *European Project Management Journal*, 10(1), 64-68. [doi: 10.18485/epmj.2020.10.1.7](https://doi.org/10.18485/epmj.2020.10.1.7).
- [9] Jamal Al-Lail, H.R., & Mohamed, E. (2019). Innovation in the quality life cycle of higher education institutions: The case of Effat University. In *Management and administration of higher education institutions at times of change* (pp. 99-116). Leeds: Emerald Publishing Limited. [doi: 10.1108/978-1-78973-627-420191007](https://doi.org/10.1108/978-1-78973-627-420191007).
- [10] Jardim, R., Santos, L., Rodrigues, H., França, J., & Vivacqua, A. (2023). Measurement of collaboration with Agile practices in a virtual learning environment. *Procedia Computer Science*, 221, 33-40. [doi: 10.1016/j.procs.2023.07.005](https://doi.org/10.1016/j.procs.2023.07.005).
- [11] Kate, V., Bhalerao, S., & Sharma, V. (2023). Exploring Agile methodologies in educational software development – a comparative analysis and project management insights. In *2023 IEEE international conference on ICT in business industry & government (ICTBIG)*. Indore: IEEE. [doi: 10.1109/ICTBIG59752.2023.10456214](https://doi.org/10.1109/ICTBIG59752.2023.10456214).
- [12] Lalic, B., Ciric, D., Savkovic, M., Rakic, S., & Marjanovic, U. (2021). Exploring the use of game-based learning in Agile project management education. In *2021 19th international conference on emerging elearning technologies and applications (ICETA)* (pp. 218-224). Košice: IEEE. [doi: 10.1109/ICETA54173.2021.9726599](https://doi.org/10.1109/ICETA54173.2021.9726599).
- [13] Levy, M., Hadar, I., & Aviv, I. (2021). Agile-based education for teaching an Agile requirements engineering methodology for knowledge management. *Sustainability*, 13(5), article number 2853. [doi: 10.3390/su13052853](https://doi.org/10.3390/su13052853).
- [14] Lopez-Alcarria, A., Olivares-Vicente, A., & Poza-Vilches, F. (2019). A systematic review of the use of Agile methodologies in education to foster sustainability competencies. *Sustainability*, 11(10), article number 2915. [doi: 10.3390/su11102915](https://doi.org/10.3390/su11102915).
- [15] Miličević, J., Filipović, F., Jezdović, I., Naumović, T., & Radenković, M. (2019). Scrum Agile framework in e-business project management: An approach to teaching scrum. *European Project Management Journal*, 9(1), 52-60. [doi: 10.18485/epmj.2019.9.1.7](https://doi.org/10.18485/epmj.2019.9.1.7).
- [16] Orsdemir, A., Tilki, G., & Altinay, F. (2019). Evaluation by teachers of “Use of influence in Agile management” by school administration. *International Journal of Disability, Development and Education*, 66(6), 577-589. [doi: 10.1080/1034912X.2019.1634249](https://doi.org/10.1080/1034912X.2019.1634249).
- [17] Rivera, G., & Zuleta, J. (2023). Management of software projects in degree projects using an Agile methodology. In *2023 18th Iberian conference on information systems and technologies (CISTI)*. Aveiro: IEEE. [doi: 10.23919/CISTI58278.2023.10212009](https://doi.org/10.23919/CISTI58278.2023.10212009).
- [18] Saleh, S., Richard Philip, S., & Shemu, N. (2019). Agile understanding analysis and comparison through students evaluation. In *2019 international conference on computational intelligence and knowledge economy (ICCIKE)* (pp. 707-712). Dubai: IEEE. [doi: 10.1109/ICCIKE47802.2019.9004271](https://doi.org/10.1109/ICCIKE47802.2019.9004271).
- [19] Sarhadi, P., Naeem, W., Fraser, K., & Wilson, D. (2022). On the application of Agile project management techniques, V-model and recent software tools in postgraduate theses supervision. *IFAC-PapersOnLine*, 55(17), 109-114. [doi: 10.1016/j.ifacol.2022.09.233](https://doi.org/10.1016/j.ifacol.2022.09.233).

- [20] Sherstobitova, A., Glukhova, L., Khozova, E., & Krayneva, R. (2020). Integration of Agile methodology and PMBOK standards for educational activities at higher school. In V. Uskov, R. Howlett & L. Jain, (Eds.), *Smart education and e-learning 2020. Smart innovation, systems and technologies* (pp. 339-349). Singapore: Springer. [doi: 10.1007/978-981-15-5584-8_29](https://doi.org/10.1007/978-981-15-5584-8_29).
- [21] Tamayo Avila, D., Van Petegem, W., & Snoeck, M. (2022). Improving teamwork in Agile software engineering education: The ASEST+ framework. *IEEE Transactions on Education*, 65(1), 18-29. [doi: 10.1109/TE.2021.3084095](https://doi.org/10.1109/TE.2021.3084095).
- [22] Tapia, J., Avilés, F., García, J., Cuesta, D., & Flores, C. (2023). Business process management in the digital transformation of higher education institutions. In Á. Rocha, C. Ferrás & W. Ibarra (Eds.), *Information technology and systems. Lecture notes in networks and systems* (pp. 561-571). Cham: Springer. [doi: 10.1007/978-3-031-33258-6_51](https://doi.org/10.1007/978-3-031-33258-6_51).
- [23] Vitchenko, O., & Shcherbakov, S. (2022). Problems and challenges of educational and methodological activities in higher education in the context of digitalization of education. In A. Beskopylny & M. Shamtsyan (Eds.), *XIV international scientific conference "Interagromash 2021". Lecture notes in networks and systems* (pp. 823-832). Cham: Springer. [doi: 10.1007/978-3-030-80946-1_75](https://doi.org/10.1007/978-3-030-80946-1_75).
- [24] Zhu, T., & Ryzhkov, O. (2021). Application of Agile methodology in planning a joint educational program. In *2021 IEEE international conference on smart information systems and technologies (SIST)*. Astana: IEEE. [doi: 10.1109/SIST50301.2021.9465917](https://doi.org/10.1109/SIST50301.2021.9465917).

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Agile-менеджмент як інструмент трансформації освітнього управління

Анотація. Метою даного дослідження було вивчення можливостей Agile-менеджменту як інструменту для трансформації освітнього управління. У дослідженні проаналізовано вплив Agile-підходів на організацію навчального процесу та управлінські процеси у закладах вищої освіти. Методологія дослідження включала порівняльний аналіз, що дозволив оцінити ефективність впровадження Agile-менеджменту в освітній процес, а також SWOT-аналіз, який виявив сильні та слабкі сторони, можливості та загрози, пов'язані з цим підходом. Основні результати свідчать про те, що адаптація Agile-менеджменту сприяє підвищенню гнучкості в управлінні освітніми проектами, зменшує час на ухвалення рішень і підвищує ефективність комунікації між усіма учасниками освітнього процесу. Впровадження таких підходів дозволило навчальним закладам швидше реагувати на зміни в навчальних програмах, адаптуватися до нових технологій та потреб ринку праці. Дослідження також виявило, що використання Agile-методів позитивно вплинуло на мотивацію студентів і викладачів, сприяючи формуванню більш відкритого і колабораційного навчального середовища. Студенти відзначали підвищену активність у навчанні, а викладачі – поліпшення взаємодії з учнями, що призвело до зростання задоволеності від освітнього процесу. Отримані результати вказують на значний потенціал Agile-менеджменту для підвищення ефективності управління закладами вищої освіти. Вдосконалення цих практик, а також їх адаптація до специфічних умов навчальних закладів забезпечить стійкий розвиток освіти в майбутньому. Дане дослідження підтверджує важливість розробки нових стратегій управління, що покращить організацію навчального процесу, підвищить задоволеність студентів та сприятиме інноваційному розвитку освітніх установ.

Ключові слова: лідерство в освітньому середовищі; цифрова трансформація університетів; розвиток академічного потенціалу; управління інноваційними проектами; система контролю якості освіти