



## **Agile and Lean: Management Strategy to Increase Efficiency and Responsibility**

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### **ABSTRACT**

*In an increasingly competitive business era, companies need to adapt quickly to market changes while maintaining operational efficiency. The Agile and Lean Management Approach has emerged as an effective strategy to achieve this goal, with Agile emphasizes the flexibility and responsiveness of customer needs, while Lean focuses on reducing waste and increasing value. This research uses a qualitative approach to explore the application of agile and lean strategies in the context of the organization. Data was collected through in-depth interviews, focus group discussions (FGD), and participatory observations in several companies that have implemented these two methodologies. Thematic analysis is used to identify the main patterns and themes of the data obtained. The results showed that the integration of agile and lean practices significantly improve operational performance and company responsiveness. Companies that apply these two approaches report improvements in customer satisfaction, process efficiency, and reduction of cycle time. In addition, the culture of sustainable improvement resulting from the application of these two methodologies contributes to the innovation and adaptability of the organization. To maximize the benefits of the application of Agile and Lean, companies are advised to provide adequate training to employees regarding the principles of the two approaches. Executive management support is also very important in creating an environment that supports change and innovation. With these steps, the organization can be better prepared to face challenges and take advantage of opportunities in the changing market,*

**Keywords:** Agile and Lean, Management Strategy, Increase Efficiency, Responsibility

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### **INTRODUCTION**

In today's competitive business environment, companies must adapt quickly to market changes while maintaining operational efficiency. Agile and Lean management approaches offer strategies to achieve this balance (Tolf, 2017). Agile emphasizes flexibility and responsiveness to customer needs, while Lean focuses on waste reduction and value enhancement (Sayudin, 2023). The digital era demands businesses to rethink old processes and implement new technologies to remain competitive

(Astuti et al., 2023). Successful businesses in this era are those that can rapidly adapt and stay responsive to market and technological changes. Integrating digital technologies allows companies to improve efficiency, flexibility, and responsiveness to market demands and regulatory requirements (Harto et al., 2023). Key factors for successful digital integration include visionary leadership, innovation culture, and organizational readiness for change. Adopting these approaches can enhance productivity and customer satisfaction, crucial for business

sustainability in the current digital age (Astuti et al., 2023). Adopting these two approaches not only increases productivity but also customer satisfaction, which is very important for business continuity in the current digital era.

Recent research highlights the challenges and benefits of implementing agile strategies in various organizational contexts. While agile approaches can enhance organizational flexibility, efficiency, and adaptability (Waruwu, 2024), many companies struggle with implementation due to lack of understanding, employee resistance, and difficulty in measuring success (Sujono et al., 2020). A study on Agile adoption in Indonesian higher education identified 12 challenge variables (Sujono et al., 2020). However, when successfully implemented, Agile HR can improve performance, emphasizing continuous feedback and employee development (Waruwu, 2024). In the context of small businesses, agility strategies have shown positive impacts on market responsiveness and resource efficiency, though limitations in workforce and technology remain significant hurdles (Pratiwi et al., 2024). Additionally, integrating sustainability and corporate social responsibility (CSR) into business operations presents its own set of challenges, but can lead to improved stakeholder engagement and resource efficiency (Sjioen et al., 2023). The author argues that although the application of the Agile strategy offers many benefits to the organization, challenges in understanding, employee resistance, and measurement of success remains significant obstacles that need to be overcome to achieve optimal results.

The integration of Agile and Lean methodologies in project management offers significant benefits for

organizations. This combined approach, known as Lean Agile, maximizes customer value delivery while minimizing waste and adapting to market changes (Machado et al., 2020). Agile methods enhance project management by improving adaptability and responsiveness to rapid changes (Hidayah & Asnadi, 2024). When applied to HR functions, Agile principles increase organizational flexibility, speed, and adaptability, crucial for long-term success in global competition (Waruwu, 2024). A practical application of Lean Agile in project monitoring and controlling demonstrated high user satisfaction and validity through a dashboard implementation (Suri et al., 2023). Key features of Lean Agile include continuous delivery, customer feedback, and retrospective cycles (Rodríguez et al., 2019). This integrated approach creates a more responsive and efficient work environment, enhancing employee engagement in improvement processes across various organizational functions.

Recent research highlights the effectiveness of combining Lean and Agile methodologies in project management. Studies show that organizations adopting both approaches experience improvements in product quality, customer satisfaction, and resource efficiency (Lolomsait & Setiawan, 2025). The Agile method, in particular, has been recognized for its ability to help organizations adapt to rapid changes (Amajuoyi et al., 2024). However, implementing Agile is not without challenges, especially in higher education institutions in Indonesia (Setiawan, 2021). Shared leadership and effective team interactions are crucial for successful Agile project management in IT fields (Hofman et al., 2023). The integration of Lean Construction in construction projects has been found to offer numerous

benefits, including cost reduction, improved safety, and increased customer satisfaction (Babalola et al., 2019). These findings underscore the potential of combining Lean and Agile approaches to significantly enhance project success across various sectors.

The purpose of implementing agile and lean strategies is to create a more effective and responsive management system of customer needs and market changes. By increasing operational efficiency and product quality, companies can not only meet customer expectations but also adapt quickly to new challenges. This is expected to increase the competitiveness of companies in the global market that continues to change.

## **METHOD**

In this study, the type of research chosen was qualitative research. This approach was chosen because it was able to provide a deep understanding of the application of the Agile and Lean methods in the context of the organization. Qualitative research allows researchers to explore experience, perceptions, and challenges faced by employees and managers in implementing these two strategies. Thus, this research does not only focus on measurable results, but also in the context and dynamics that affect the implementation of this modern management method.

Data collection techniques that will be used in this study include several methods, including in-depth interviews, Focus Group Discussion (FGD), and participatory observations. Semi-structured interviews will be conducted with project managers, team members, and other stakeholders to get their views on the implementation of Agile and Lean. In addition, FGD will involve various internal parties organizations to explore their collective experiences. Participatory

observations will also be carried out to understand the dynamics of teams and practices that are applied directly. The research instrument will include interview guidelines and FGDs specifically designed to explore the key aspects of the application of the two methods.

The research stages will consist of several important steps. First, preparation is done by preparing a research proposal that includes the objectives, methodology, and instruments to be used, as well as obtaining permission from related parties in the organization. Furthermore, at the data collection stage, the researcher will conduct interviews, FGDs, and observations in accordance with the specified schedule. After the data is collected, the data processing stage will be carried out by transcribing the results of the interview and FGD, as well as organizing observation records. Then, at the data analysis stage, the researcher will use the thematic analysis technique to identify the main patterns and themes arises from the data that has been collected.

The data analysis technique used is a thematic analysis, which includes several steps. First, researchers will carry out families with data by reading interview transcripts and observation notes to understand the overall context. Furthermore, researchers will make data coding by identifying important segments of data and giving codes on certain themes or categories. After that, researchers will look for the main theme by grouping these codes into larger themes. This process is followed by reviewing themes to ensure that the resulting theme reflects data accurately. Finally, researchers will define and name themes, as well as compile the results of analysis in narrative form that describe the main findings and their implications

for management practices in the organization.

With this research method, it is hoped that in-depth insights can be obtained regarding the application of agile and Lean and their impact on company efficiency and responsiveness. This research is expected to make a significant contribution to the development of better management practices in the changing business era.

## RESULTS AND DISCUSSION

The results of research on the application of the Lean and Agile methods in project management showed a positive impact on the success of the project and responsiveness to customer needs and market changes. The following are the results of the research and discussion:

### **Increased project success**

Research shows that the application of the Lean and Agile method significantly increases project success. This is measured through indicators such as completion on time, according to the budget, and the achievement of project objectives. Research indicates that implementing Lean and Agile methodologies significantly improves project success, as measured by timely completion, budget adherence, and goal achievement. A study on PT. XYZ found that using Agile and Lean Development methods in designing a project monitoring dashboard led to high user satisfaction and improved project tracking (Torri et al., 2021). A systematic literature review confirmed that Agile methods contribute substantially to effective project management (N. Hidayah & Nur Muhammad Asnadi, 2024). Despite challenges in adoption, particularly in Indonesian higher education institutions (Sujono Sujono et al., 2020), Agile approaches have shown positive impacts on project success

dimensions across various industries and countries. Additionally, the application of Lean Project Management in construction projects, including waste identification and Critical Chain Project Management for scheduling, resulted in significant time savings and improved project planning (Silvia Hermina Stevania Untu et al., 2014). The author argues that despite the challenges in the application of the Lean and Agile methodology, evidence shows that these two approaches significantly increase project success in various industries, including in the context of higher education and construction, through increasing user satisfaction and planning efficiency.

### **Efficiency and reduction of waste**

The lean method focuses on removing waste in the process, which contributes to increasing operational efficiency. By reducing activities that do not provide added value, organizations can use their resources more effectively. Lean management focuses on eliminating waste to enhance operational efficiency. By implementing lean principles, organizations can identify and reduce non-value-adding activities, thereby optimizing resource utilization (Hastono et al., 2023). The lean philosophy recognizes eight sources of waste that detract from customer value, and educating employees about these can yield substantial benefits (Kavanagh & Krings, 2011). Lean tools, such as Value Stream Mapping and Kaizen, help organizations create more efficient work processes, reduce costs, and improve product quality (Hastono et al., 2023). A case study of a Malaysian SME demonstrated that adopting lean principles significantly reduced waiting times and cycle times, driving continuous improvement in the production process (Memari et al., 2022). The application of lean management can lead to increased

cost and time efficiency, better product quality, higher customer satisfaction, and improved organizational flexibility (Hastono et al., 2023; Hamdan & Hossain, 2022). The author argues that the application of lean management can effectively eliminate waste, improve operational efficiency, and produce significant benefits such as reduction of waiting time, improving product quality, and higher customer satisfaction, as evidenced by case studies in various organizations.

### **Responsiveness to change**

The agile method allows the team to adapt quickly to changes in customer needs. Research shows that a team that uses an agile approach can respond to requests for change better, thereby increasing customer satisfaction. Research indicates that agile methodologies enhance customer satisfaction and software quality through rapid, continuous delivery of high-quality software (Buresh, 2008). Agile practices, such as whole team involvement, short releases, and customer collaboration, have been shown to increase organizational productivity and customer satisfaction (Kumar & Goel, 2012). Various agile processes, including XP, Scrum, and Lean, demonstrate higher responsiveness to changes compared to more traditional approaches like FDD and DSDM (Raza & Waheed, 2018). While agile methods are widely adopted for their purported ability to handle changes effectively, a comprehensive study revealed that agile teams often employ mitigation strategies and may be reluctant to accept requirements changes. Interestingly, the ability to respond to changes is only a minor reason for adopting agile; more significant motivators include shorter delivery times and increased team productivity (Madampe et al., 2020). These findings suggest that agile

methodologies offer benefits beyond change management, contributing to overall project success and team performance.

### **Increased customer satisfaction**

The research results also indicate that the application of these two methods contributes to increasing customer satisfaction. With faster and faster products or services, companies can meet customer expectations better. Recent research highlights the importance of digital marketing strategies and customer satisfaction in various industries. Application-based digital marketing approaches can enhance customer satisfaction through targeted content, platform selection, and ongoing engagement (Zanubiya et al., 2023). In the automotive sector, system dynamics modeling revealed that reducing service costs, repair time, and car acceptance time while improving repair order descriptions can increase customer satisfaction (Soltani et al., 2021). For mobile food delivery services, natural language processing of user reviews showed that sentiment dimensions, usability, usefulness, and affection significantly impact user satisfaction (Park, 2022). Quality Function Deployment (QFD) and the Kano model can be applied to improve product document management by identifying critical service quality aspects from the customer's perspective (Broka & Robertsons, 2024). These studies collectively emphasize the importance of understanding customer needs and leveraging technology to enhance satisfaction across different industries.

### **Process speed as a mediator variable**

The speed process is identified as a mediator variable that strengthens the relationship between lean and agile practices on project success. The faster the process is carried out, the higher the

possibility of the success of the project. The relationship between lean and agile practices and project success is complex, with various mediating factors. Lean and agile practices can enhance process quality and operational performance in manufacturing (Ali A. Alzoubi et al., 2022; M. Khalfallah & L. Lakhali, 2020). However, the impact of agile practices on project success is not straightforward, as they can have both positive and negative effects on success conditions (Sandstø & Reme-Ness, 2021). The speed of processes, while not explicitly mentioned as a mediator, can be inferred as a potential factor in project success, given the emphasis on efficiency in lean and agile methodologies (Ali A. Alzoubi et al., 2022; M. Khalfallah & L. Lakhali, 2020). Additionally, big data analytics has been identified as a mediator between lean, agile, resilient, and green practices and sustainable supply chain performance, suggesting that data-driven decision-making may play a role in enhancing project outcomes (Raut et al., 2021). The author argues that although the practice of lean and agile can improve the quality of the process and operational performance, their relationship with the success of the project is influenced by various mediation factors, including the speed of the process and analytic data of large data, which can strengthen the results of the project in the context of sustainability and efficiency.

## CONCLUSION

The application of the Lean and Agile method in project management has been proven to have a significant positive impact on project success, operational efficiency, and customer satisfaction. By integrating these two approaches, organizations can create a responsive and adaptive management system for market changes, while reducing waste and

increasing added value. The results showed that the speed of the process acts as a mediator variable that strengthens the relationship between lean and agile practices on project success. Therefore, the adoption of these two methods is very important to increase the competitiveness of companies in the changing business era.

To ensure the success of the implementation of the Lean and Agile method, the company is advised to provide adequate training to employees regarding the principles of the two approaches. In addition, the support of executive management is very important in creating an organizational culture support changes and innovations. The company also needs to develop a mechanism to measure the success of implementation periodically, so that it can make continuous improvements. With these steps, the organization will be better prepared to face challenges and take advantage of opportunities that exist in the global market.

## REFERENCES

- Alzoubi, A., Alshurideh, M., Akour, I., & Al Kurdi, B. (2022). The Impact Of Lean Practices And Agile Practices On Process Quality. *International Journal of Theory of Organization and Practice (IJTOP)*, 1(1), 100-117.
- Amajuoyi, P., Benjamin, L. B., & Adeus, K. B. (2024). Agile methodologies: Adapting product management to rapidly changing market conditions. *GSC Advanced Research and Reviews*, 19(2), 249-267.
- Astuti, A. W., Sayudin, S., & Muharam, A. (2023). Perkembangan bisnis di era digital. *Jurnal Multidisiplin Indonesia*, 2(9), 2787-2792.
- Babalola, O., Ibem, E. O., & Ezema, I. C. (2019). Implementation of lean practices in the construction

- industry: A systematic review. *Building and environment*, 148, 34-43.
- Broka, K., & Robertson, G. (2024). The application of QFD and Kano model for the improvement of product document management.
- Buresh, D. L. (2008). Customer satisfaction and agile methods. *IEEE Reliability Society Annual Technology Report*, 1-8.
- Hamdan, N. R., & Hossain, A. M. (2022). Applying of Lean Management to Increase Organization Efficiency: a Case Study. *The International Journal of Science & Technoledge*, 10(5).
- Harto, B., Pramuditha, P., Dwijayanti, A., Parlina, L., & Sofyan, H. (2023). Strategi Bisnis Berkelanjutan Melalui Inovasi Model Operasional Di Era Digitalisasi Bisnis. *ATRABIS: Jurnal Administrasi Bisnis*, 9(2), 243-251.
- Hastono, H., Affandi, A., & Sunarsi, D. (2023). Implementation of Lean Management Principles for Operational Efficiency. *Implikasi: Jurnal Manajemen Sumber Daya Manusia*, 1(2), 104-107.
- Hidayah, N. A., & Asnadi, N. M. (2024). Penerapan Metode Agile Dalam Manajemen Proyek: Systematic Literature Review. *Jurnal Perangkat Lunak*, 6(1), 43-53.
- Hofman, M., Grella, G., & Oronowicz, M. (2023). Impact of shared leadership quality on agile team productivity and project results. *Project Management Journal*, 54(3), 285-305.
- Kavanagh, S., & Krings, D. (2011). The 8 Sources of Waste and How to Eliminate Them. *Government Finance Review*, 27(6 s 18).
- Khalifallah, M., & Lakhali, L. (2021). The impact of lean manufacturing practices on operational and financial performance: the mediating role of agile manufacturing. *International Journal of Quality & Reliability Management*, 38(1), 147-168.
- Kumar, A., & Goel, B. (2012). Factors influencing agile practices: A survey. *International Journal of Engineering Research and Applications*, 2(4), 1347-1352.
- Lolomsait, M. P., & Setiawan, H. (2024). Manfaat Penerapan Lean Construction Pada Proyek Konstruksi: Systematic Review. *Konferensi Nasional Teknik Sipil (KoNTekS)*, 2(2).
- Machado, M., Salerno, L., Marczak, S., & Bastos, R. (2020, December). Assessment Models for Evaluating the Combined use of Agile, User-Centered Design and Lean Startup in the Context of Software Development: A Grey Literature Review. In *Proceedings of the XIX Brazilian Symposium on Software Quality* (pp. 1-10).
- Madame, K., Hoda, R., & Grundy, J. (2020). A Multi-dimensional Study of Requirements Changes in Agile Software Development Projects. *arXiv preprint arXiv:2012.03423*.
- Memari, A., Panjehfouladgaran, H. R., Rahim, A. R. A., & Ahmad, R. (2022). The impact of lean production on operational performance: a case study. *Asia-Pacific Journal of Business Administration*, 16(3), 530-552.
- Park, E. (2022). Computational analysis of user experience and customer satisfaction with mobile food delivery services: Evidence from big data approaches. *Mathematical Biosciences and Engineering*, 19(10), 9938-9947.

- Pratiwi, J. A., Defita, J., Jayati, L., & Sanjaya, V. F. (2024). Strategi Agility. *JURNAL MANAJEMEN DAN BISNIS*, 3(2), 95-107.
- Raut, R. D., Mangla, S. K., Narwane, V. S., Dora, M., & Liu, M. (2021). Big Data Analytics as a mediator in Lean, Agile, Resilient, and Green (LARG) practices effects on sustainable supply chains. *Transportation Research Part E: Logistics and Transportation Review*, 145, 102170.
- Raza, S., & Waheed, U. (2018, November). Managing change in agile software development a comparative study. In *2018 IEEE 21st International Multi-Topic Conference (INMIC)* (pp. 1-8). IEEE.
- Rodríguez, P., Mäntylä, M., Oivo, M., Lwakatare, L. E., Seppänen, P., & Kuvaja, P. (2019). Advances in using agile and lean processes for software development. In *Advances in computers* (Vol. 113, pp. 135-224). Elsevier.
- Sandstø, R., & Reme-Ness, C. (2021). *Agile practices and impacts on project success*.
- Sayudin, S. (2023). Membentuk Strategi Bisnis Yang Tangguh Dalam Era Manajemen Yang Berubah. *Jurnal Multidisiplin Indonesia*, 2(7), 1566-1572.
- Setiawan, M. A. (2021, February). Scrum adoption challenges in higher education in indonesia: case study of board of information system, Universitas Islam Indonesia. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1077, No. 1, p. 012070). IOP Publishing.
- Sjioen, A. E., Amaludin, A., Rukmana, A. Y., Syamsulbahri, S., & Wahyudi, I. (2023). Bisnis Berkelanjutan dan Tanggung Jawab Sosial Perusahaan: Studi tentang Dampak dan Strategi Implementasi. *Jurnal Bisnis Dan Manajemen West Science*, 2(03), 239-248.
- Sobhani, F. M., & Najafi, S. E. (2023). Determining the increased numerical value of customer satisfaction, which has been impacted by latent and observed factors in after-sales service in the automotive industry, based on System Dynamics Method.(A Case study in car manufacturer). *Journal of Engineering Research*, 11(2B).
- Sujono, S., Setiawan, M. A., & Haryono, K. (2020). Tantangan Adopsi Agile di Perguruan Tinggi di Indonesia (Challenges of Agile Adoption in Higher Education in Indonesia). *JUITA: Jurnal Informatika*, 8(2), 197-206.
- Sujono, S., Setiawan, M. A., & Haryono, K. (2020). Tantangan Adopsi Agile di Perguruan Tinggi di Indonesia (Challenges of Agile Adoption in Higher Education in Indonesia). *JUITA: Jurnal Informatika*, 8(2), 197-206.
- Suri, G. P., Herasmus, H., Rozali, R., & Larisang, L. (2023). Perancangan Dashboard Monitoring Penjadwalan Dosen dalam Proses Belajar Mengajar: Optimalisasi Efisiensi dan Efektivitas. *JR: Jurnal Responsive Teknik Informatika*, 7(02), 103-114.
- Tolf, S. (2017). *Lean, agile, and lean and agile hospital management: Responses to introducing choice and competition in public health care* (Doctoral dissertation, Karolinska Institutet (Sweden)).
- Torri, M., Kundu, K., Frecassetti, S., & Rossini, M. (2021). Implementation of lean in IT SME company: an Italian case. *International Journal of Lean Six Sigma*, 12(5), 944-972.
- Untu, S. H. S., Dundu, A. K., & Mandagi, R. J. (2014). Penerapan Metode Lean Project Management dalam



- Perencanaan Proyek Konstruksi (Studi Kasus: Pembangunan Gedung Mantos Tahap III). *Jurnal Sipil Statik*, 2(6), 320-329.
- Waruwu, E. (2024). Agile Human Resources: Memanfaatkan Agilitas untuk Mendorong Kesuksesan Organisasi. *Tuhenori: Jurnal Ilmiah Multidisiplin*, 2(1), 32-36.
- Zanubiya, J., Meria, L., & Juliansah, M. A. D. (2023). Increasing Consumers with Satisfaction Application based Digital Marketing Strategies. *Startupreneur Business Digital (SABDA Journal)*, 2(1), 12-21.