

ORGANIZATIONAL AGILITY IN THE ASPECT OF SUSTAINABLE DEVELOPMENT OF THE ORGANIZATION

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Purpose: The study aims to examine the impact of organizational agility on the ability of companies to achieve sustainable development. It focuses on agile behaviors and strategies employed by organizations in various industries and their impact on the economic, social, and environmental aspects of sustainable development.

Design/methodology/approach: A research method based on a survey was used, conducted on a sample of 806 individuals representing diversity in gender, age, positions, work experience, company size and type, company's operational period, and industries. The study allows for a detailed analysis of organizational agility in various contexts and operating conditions of companies.

Findings: The study found that organizational agility has a positive impact on the ability of companies to achieve sustainable development. The results show that organizations capable of quickly responding to market changes, effectively recognizing customer needs, identifying opportunities and threats, ensuring high-quality products, introducing innovations, and offering personalized products and services perform better in the context of sustainable development.

Research limitations/implications: A limitation of the study is the use of the survey method, which may not fully capture the complexity and dynamics of organizational agility in various business contexts. Future research could include expanding the sample to more industries and regions, as well as employing more complex research methods such as case studies or long-term observations.

Practical implications: The study emphasizes the importance of investing in organizational agility to achieve sustainable development. Companies should focus on developing decision-making speed, adapting to changing market needs, social engagement, promoting innovation and growth, and integrating economic, social, and environmental goals into their strategies.

Social implications: The study indicates that developing organizational agility can contribute to better alignment of companies with social and environmental requirements, which is crucial in today's dynamic times. Engaging in social initiatives and collaborating with local communities can build positive social impact and strengthen the organization's image.

Originality/value: The article provides a new perspective on the relationship between organizational agility and sustainable development, illustrating how these two aspects are interconnected. The study offers valuable insights for companies aiming for sustainable development through the development of organizational agility.

Keywords: organizational agility, sustainable development, organization.

Category of the paper: research paper.

1. Introduction

In the face of a constantly changing business environment, organizational agility becomes a key factor enabling companies to effectively adapt to new challenges. Sustainable development, encompassing economic, social, and ecological aspects, is equally important in the context of long-term success of enterprises. This article aims to examine how organizational agility affects the ability of companies to achieve sustainable development, focusing on the analysis of agile behaviors and strategies used by organizations in various industries and their impact on the three main aspects of sustainable development.

The research questions focus on identifying key agile behaviors and assessing how these behaviors contribute to the success of the organization. The research hypothesis assumes that organizations exhibiting greater agility are more effective in achieving sustainable development goals. The research method is based on a survey conducted on a sample of 806 individuals, representing diverse gender, age, positions, length of service, size and type of company, period of operation, and industries. This data enables a detailed analysis of organizational agility and its impact on the ability of companies to achieve sustainable development.

2. Literature Review

2.1. Organizational agility in the business environment

Organizational agility is a key element in the dynamic business environment, referring to a company's ability to quickly adapt to market and technological changes while maintaining efficiency and effectiveness (Kumkale, 2022). In the context of agility, it is important to understand the various aspects that comprise this capability.

Strategic flexibility is one of the main components of organizational agility. It means the ability to quickly adapt business strategies in response to changing market conditions (Skyrius, Valentukevi, 2021). Companies that can quickly respond to changes often have a competitive advantage, as they can seize new opportunities before their competitors do (Cappelli, Tavis, 2018).

A culture of innovation is another key aspect of organizational agility. Promoting a culture that encourages innovation and experimentation is essential for agile organizations. This approach allows for the rapid testing of new ideas and adaptation to changing market demands (Cegarra-Navarro, Sánchez-García, Marco-Lajara, García-Pérez, 2021).

Operational agility is the ability to quickly and effectively adjust internal processes and resources in response to changing business needs. This includes managing human and technological resources, as well as production and logistical processes (Overby, Bharadwaj, Sambamurthy, 2006).

Communication and collaboration are also important for organizational agility. Effective communication within the company and with external partners allows for faster problem-solving and seizing new opportunities. Collaboration between different departments and teams is crucial for the rapid implementation of changes and innovations (McNamee, Schoch, Oelschlaeger, Huskey, 2012).

In the context of organizational agility, continuous learning and development are also important. Organizations that invest in their employees' development and encourage continuous learning are better prepared to adapt to new challenges and technologies (Bray et al., 2019).

In summary, organizational agility is a complex set of capabilities that enable companies to quickly respond to changing market and technological conditions. This includes strategic flexibility, a culture of innovation, operational agility, effective communication and collaboration, as well as continuous learning and development. Companies that develop these aspects are better prepared to achieve success in the rapidly changing business world (Narasimhan, Talluri, Mahapatra, 2006; Fosso Wamba, 2022; Rahman, 2022).

2.2. Organizational agility and the sustainable development of organizations

Sustainable development in organizations is a key element in today's business world, where the shift from traditional development models, focusing mainly on economic aspects, to more balanced models that also consider environmental and social issues, becomes both a challenge and a source of numerous benefits (Helfat et al., 2007; Ivory, Brooks, 2018). Sustainable development strategies allow organizations to reduce their negative impact on the environment, build better reputation and trust, engage in social development, and promote ethical business practices (Crane et al., 2008; Crane et al., 2013).

Sustainable development, a key issue in management, requires organizations to find a balance between economic development, environmental protection, and social responsibility, which is a fundamental challenge for long-term success (Hendy et al., 2012; Hahn et al., 2015; Hahn et al., 2016).

At the same time, sustainable development enables organizations to build a positive image and reputation (Jones et al., 2004). There is increasing attention to the social responsibility of organizations, and sustainable development principles can increase customer trust and loyalty, and attract investors (He, Harris, 2020). There are many strategies that organizations can use to achieve sustainable development, including the implementation of sustainable environmental management policies (Junni et al., 2015) and investing in social development (Carroll, Shabana, 2016).

Organizational agility has become a key element of sustainable development (Kocot, Kwasek, 2022). Investing in continuous process improvement, building flexible structures, and promoting a culture of innovation and learning are important activities in this area (Helfat, Peteraf, 2003; Knight, Paroutis, 2017).

In conditions of market uncertainty, organizations must be able to quickly respond to new challenges, while maintaining a balance between economic efficiency, environmental protection, and social responsibility (Aras, Crowther, 2008; Damayanti et al., 2023; Cowling et al., 2020; Iavicoli et al., 2021).

By developing organizational agility, organizations can better adapt to changing market and socio-ecological conditions, enabling effective achievement of sustainable development goals (Kadenic, Tambo, 2023; Kereluik et al., 2013). Moreover, engaging in social initiatives and collaborating with local communities contributes to building positive social impact and strengthening the organization's image. Such actions not only contribute to the development of local communities but also build a positive image of the organization, which in turn translates into greater trust from customers and investors (Brueller et al., 2014; Matten, Moon, 2018).

Developing organizational agility in the context of sustainable development enables organizations to effectively respond to changing social, environmental, and economic requirements, which is important in these dynamic times (Kettunen et al., 2021). Adopting organizational agility as the foundation of sustainable development allows organizations to achieve long-term success, minimizing the negative impact on the environment and contributing to the creation of positive social changes (Doz, Kosonen, 2010; 2011).

In the context of increasing digitization and digital transformation, organizations must adapt to new business models and technological innovations (Hartzband, Groopman, 2008; Hess et al., 2016; Javornik, 2016). These changes open up new opportunities for organizations, but at the same time require them to be flexible and innovative to remain competitive in the changing market (Hashem, Aboelimged, 2023; Homrozi, 2009).

In summary, sustainable development in organizations is not only a response to growing environmental and social challenges but also a key strategy enabling organizations to achieve long-term success in the dynamic business world. By integrating the principles of sustainable development, investing in organizational agility, and engaging in social initiatives, organizations can effectively build a lasting competitive advantage and contribute to creating a better future for themselves, society, and the natural environment.

3. Materials and methods

The aim of the article is to investigate how organizational agility affects the ability of companies to achieve sustainable development. The subject of the study is agile behaviors and strategies used by organizations in various industries and their impact on the three main aspects of sustainable development: economic, social, and environmental.

The research questions focus on identifying key agile behaviors and assessing how these behaviors contribute to the success of organizations in the context of sustainable development. The research hypothesis assumes that organizations that exhibit greater agility are more effective in achieving sustainable development goals.

The research method used in this article is a survey. It was conducted on a sample of 806 individuals, representing diverse genders, ages, positions, tenure, company size and type, period of company operation, and industries. This data allows for a detailed analysis of organizational agility in various contexts and operating conditions of companies. The research findings, presented in tables, enable an understanding of how various aspects of organizational agility affect the ability of companies to achieve sustainable development.

In the study conducted on a group of 806 people, sociodemographic data were collected, which allow for a deeper understanding of the profile of participants. Among them, 53.1% were women and 46.9% were men. The age group was diverse: 30.3% of respondents were below 25 years old, 27.7% were between 26-35 years, 29.5% were 36-45 years old, and 12.5% were over 45 years old.

Regarding the positions held, 5.1% were top management, 36.6% middle management, 18.4% lower management, and 40% were employees. In terms of tenure, 29.4% had up to 5 years of experience, 27.5% worked for 6-10 years, 13.2% for 11-15 years, 18.6% for 16-20 years, and 11.3% for over 20 years.

The size of the companies where the respondents worked was also diverse: 20.3% worked in micro-enterprises, 34.5% in small, 29.9% in medium, and 15.3% in large enterprises. Regarding the period of company operation, 8.6% had been operating for over 1 year, 31.6% from 1 to 3 years, 27.5% from 4 to 7 years, and 32.3% for over 8 years.

Among the industries, the most respondents (49.4%) came from retail trade, followed by 32.8% from other industries, 8% from the automotive industry, 7.6% from education, and 2.4% from healthcare. The geographic scope of the companies' operations was as follows: 14.5% local, 33.5% regional, 32.1% national, and 19.9% international.

The assessment of the financial situation of the companies indicated that 25.2% of respondents considered it very good, 52.2% good, 3.9% bad, 1.6% very bad, and 17.1% had difficulty assessing.

4. Research results

Table 1 presents the results of a study on agile behaviors in organizations, involving 806 participants. The highest percentage of respondents (72.1%) indicated that their organizations can quickly respond to market changes, demonstrating a high adaptability of these firms. Furthermore, 59.3% of respondents emphasized that their companies effectively recognize customer needs, which is crucial in the context of customer orientation.

Additionally, 61.4% of study participants indicated that their organizations are capable of identifying opportunities and threats, an important element of risk management. High-quality products are provided by 53.2% of the companies, and 52.1% of them introduce innovations, highlighting their pursuit of continuous development and improvement of their offerings.

Offering personalized products and services is characteristic for 55.8% of the surveyed companies, which may indicate flexibility in adapting to individual customer needs. Adapting to market requirements is a feature of 49.7% of organizations, which may reflect their agility in responding to external factors.

Being able to predict changes is true for 46.1% of companies, which is significant in the context of strategic planning. Modifying operating strategies to better solve business problems is practiced by 50.9% of the surveyed organizations. In terms of market position, 34.7% of companies assess that they are performing excellently, and 35.1% use advanced technologies, which may indicate their modernity and innovativeness. Finally, 29.5% of respondents stated that their companies grade market opportunities, which may indicate a strategic approach to exploiting market opportunities. These results reflect the various aspects of organizational agility that can impact a company's success in a dynamic business environment.

Table 1.

Agile Behaviors of Organizations, N = 806

	N	%
Can quickly respond to market changes	579	72,1%
Can recognize customer needs	476	59,3%
Can identify opportunities and threats	493	61,4%
Provides high-quality products	427	53,2%
Introduces innovations	418	52,1%
Offers personalized products and services	448	55,8%
Adapts to market requirements	399	49,7%
Can anticipate changes	370	46,1%
Modifies its operational strategy for better business problem-solving	409	50,9%
Excels in the market	279	34,7%
Uses advanced technologies	282	35,1%
Grades market opportunities	237	29,5%

Source: own.

The study was focused on understanding how agile behaviors in organizations translate into sustainable development, as shown in Table 2 with the participation of 806 respondents. These data reflect various aspects of agility and their impact on the development of organizations in the economic, social, and ecological context.

The first aspect concerns the speed of decision-making. The majority of respondents (402 "rather yes" and 311 "definitely yes") indicated that their organizations respond quickly to changing circumstances, which is crucial for agility. Only a small percentage (12 "definitely not" and 26 "rather not") expressed the opposite opinion.

Next, adaptation to market needs and requirements is another important element. Here again, the majority (507 "rather yes" and 135 "definitely yes") confirmed that their companies are flexible in responding to changing market conditions.

In the context of promoting innovation and continuous development, the majority of respondents (401 "rather yes" and 227 "definitely yes") recognized that their organizations actively implement new solutions and focus on development. Engagement in social activities, which is an important aspect of sustainable development, was also positively assessed by the majority of respondents (471 "rather yes" and 156 "definitely yes").

Finally, the emphasis on economic, social, and ecological aspects, which are the foundation of sustainable development, was confirmed by the majority of respondents (452 "rather yes" and 193 "definitely yes"). These results show that organizations focus on various aspects of agility, which have a significant impact on their ability to achieve sustainable development. This indicates an awareness and effort of organizations towards integrating agility with the principles of sustainable development.

Table 2.

Agile Behaviors in the Aspect of Sustainable Development of Organizations, N = 806

	Definitely NOT	Rather NOT	No opinion	Rather YES	Definitely YES
Makes decisions at a fast pace (1)	12	26	55	402	311
Adapts to market needs and requirements (2)	4	23	137	507	135
Promotes innovation and continuous development (3)	10	29	139	401	227
Engages in social activities (4)	24	35	120	471	156
Emphasizes economic, social, and ecological aspects (5)	12	33	116	452	193

Source: own.

The analysis of the correlation table (Table 3) indicates significant relationships between the variables studied, reflecting the flexibility of organizations in the context of sustainable development. It is noted that the variable "Speed of decision-making" (1) shows significant connections with the other variables, highlighting the importance of rapid response in the context of organizational flexibility and sustainable development. An exceptionally strong correlation of this variable with "Promotion of innovation and continuous development" (3) and

"Focus on economic, social, and ecological aspects" (5) may indicate a deep link between innovativeness, sustainability, and the speed of decision-making.

The variable "Adaptation to market needs and requirements" (2) shows the highest correlation with "Engagement in social activities" (4), which may suggest that adapting to market trends is closely tied to an organization's involvement in social matters. This variable also strongly correlates with "Focus on economic, social, and ecological aspects" (5), indicating that market adaptation often involves considering these three elements of sustainable development.

The variable "Promotion of innovation and continuous development" (3) exhibits strong links with the other variables, especially with "Speed of decision-making" (1) and "Focus on economic, social, and ecological aspects" (5). This may indicate that the ability to innovate and continually develop is crucial for organizational flexibility and its sustainable development.

Finally, "Engagement in social activities" (4) and "Focus on economic, social, and ecological aspects" (5) show the strongest connections with all the other variables, suggesting that these two aspects are integrally linked to an organization's flexibility and its ability to adapt to changing conditions.

Table 3.

Agile Behaviors in the Context of Sustainable Development of Organizations, N = 806

	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
1	1				
2	0,84	1			
3	0,94	0,95	1		
4	0,87	0,99	0,962	1	
5	0,92	0,98	0,98	0,99	1

Source: own.

The analysis of the presented correlation table indicates strong connections between various aspects of agility and sustainable development of organizations. Several important observations can be made:

Variable 1 ("Speed of decision-making"): Shows a strong correlation with all other variables, particularly with variable 3 ("Promotion of innovation and continuous development") and variable 5 ("Focus on economic, social, and ecological aspects"). This indicates that the speed of decision-making is crucial for innovativeness and considering aspects of sustainable development.

Variable 2 ("Adaptation to market needs and requirements"): Has the strongest correlation with variable 4 ("Engagement in social activities"), suggesting that market adaptation is closely linked with social engagement. Its strong correlation with variable 5 also suggests considering the three elements of sustainable development.

Variable 3 ("Promotion of innovation and continuous development"): Has strong connections with all variables, highlighting its importance for the flexibility and sustainable development of organizations.

Variables 4 and 5: Show the strongest connections with all other variables, indicating their central role in ensuring organizational flexibility and adaptation to changing conditions.

Subsequently, a statistical significance analysis of the correlations for each pair of variables was conducted. The results are as follows:

Variable 1-2 (correlation: 0.84): t-value = 43.90, p-value \approx 0.0.

Variable 1-3 (correlation: 0.94): t-value = 78.12, p-value \approx 0.0.

Variable 1-4 (correlation: 0.87): t-value = 50.03, p-value \approx 0.0.

Variable 1-5 (correlation: 0.92): t-value = 66.56, p-value \approx 0.0.

Variable 2-3 (correlation: 0.95): t-value = 86.27, p-value \approx 0.0.

Variable 2-4 (correlation: 0.99): t-value = 198.99, p-value \approx 0.0.

Variable 2-5 (correlation: 0.98): t-value = 139.64, p-value \approx 0.0.

Variable 3-4 (correlation: 0.962): t-value = 99.90, p-value \approx 0.0.

Variable 3-5 (correlation: 0.98): t-value = 139.64, p-value \approx 0.0.

Variable 4-5 (correlation: 0.99): t-value = 198.99, p-value \approx 0.0.

All the p-values are very close to zero, which means that the observed correlations are statistically significant at a very high level. These results indicate statistically significant relationships between the variables studied.

5. Discussion

The conclusions derived from the conducted analysis of the statistical significance of correlations in the context of the article on organizational agility and sustainable development of organizations are as follows:

1. **Strong Significance of Decision-Making Speed:** The high correlation of the variable "Speed of decision-making" with other aspects of agility and sustainable development (especially with "Promotion of innovation and continuous development" and "Focus on economic, social, and environmental aspects") confirms that quick and effective decisions are a key element of organizational agility. This indicates that organizations capable of rapid response and adaptation have better chances of achieving sustainable development.
2. **Market Adaptation and Social Engagement:** The very strong correlation between "Adaptation to market needs and requirements" and "Engagement in social activities" suggests that companies that are sensitive to changing market conditions and actively participate in social initiatives can better respond to the needs of sustainable development.

3. **The Role of Innovation and Development:** Correlations of the variable "Promotion of innovation and continuous development" with other aspects show that innovativeness and a continual pursuit of development are important for organizational agility. Organizations that focus on innovation are more flexible and better adapted to change, which favors sustainable development.
4. **Integrated Approach to Sustainable Development:** High correlations of "Focus on economic, social, and ecological aspects" with all other variables emphasize that an integrated approach to these three dimensions is key for agility and sustainable development of organizations. This means that organizations must balance economic, social, and ecological goals to achieve lasting success.
5. **Interconnectedness of Agility and Sustainable Development:** Overall, these results confirm that organizational agility and sustainable development are closely linked. Organizations that are flexible, innovative, and socially responsible are better prepared to cope with the challenges of the modern business world while contributing to sustainable development.

6. Conclusions

Based on the analysis in the article, several key conclusions can be drawn regarding the relationship between organizational agility and sustainable development. Firstly, there is a strong correlation between the speed of decision-making in organizations and their ability to innovate and incorporate aspects of sustainable development. This indicates that organizations capable of quickly responding to market changes and adjusting their strategies have better chances of achieving sustainable development.

Secondly, market adaptation and social engagement are closely linked. Organizations that are sensitive to market changes and simultaneously engage in social activities show a greater ability to meet the requirements of sustainable development. The high correlation between these aspects suggests that organizational agility encompasses both business flexibility and social responsibility.

The third conclusion indicates that promoting innovation and continuous development are key to organizational agility. Organizations focusing on innovation and development show greater flexibility and better adapt to changing market conditions, which favors their sustainable development.

The fourth aspect is the integrated approach to sustainable development, combining economic, social, and environmental aspects. High correlations between these dimensions and other aspects of agility indicate that balancing these three areas is crucial for the long-term success of organizations.

In summary, the research findings emphasize that organizational agility and sustainable development are closely related. Organizations that are flexible, innovative, and socially responsible are better prepared to cope with the challenges of the modern business world and simultaneously contribute to sustainable development.

Based on the analysis in the article, the following recommendations for companies can be made. Firstly, increasing decision-making speed through better communication and data utilization is crucial for rapid adaptation to market changes. Then, companies should continuously adapt their products and services to changing market needs, based on thorough research and customer feedback.

Another important element is social engagement, which not only strengthens the company's image but also facilitates a better understanding and response to social challenges. Promoting innovation through investments in research and development and creating a culture that supports experimentation is also key to agility and sustainable development.

Companies should also integrate economic, social, and environmental goals in their strategies, striving for a balanced approach that considers the long-term impact of their actions. Strengthening organizational flexibility through the adaptation of business models and investment in technologies is also important, as well as investing in employee skills development in agility and sustainable development.

Finally, building partnerships with various organizations can strengthen a company's capabilities in innovation and sustainable development. In summary, companies should strive to become more agile, innovative, and socially responsible, which will contribute to their success and promote sustainable development.

The research presented identifies several limitations. One of them is the use of a survey-based research method, which may not fully capture the complexity and dynamics of organizational agility in different business contexts. Additionally, the sample size, although large, may not have covered sufficient industry diversity, potentially limiting the generalizability of the results.

Future research directions could include expanding the sample to more industries and regions to better understand how agility affects sustainable development in different economic contexts. More complex research methods, such as case studies or long-term observations, could also be used to provide deeper insight into firms' adaptive processes. Additionally, it would be valuable to explore the impact of organizational culture and leadership on agility and sustainable development, to better understand how these internal factors contribute to organizational effectiveness.

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