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## Development Factors of an Agile Organization in the Light of our Own Research

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**Abstract:**

**Purpose:** The aim of the article is to examine the key factors supporting the development of an agile organization and to assess their impact on the ability of companies to quickly respond to changes in the business environment. The research aims to understand how investing in modern technologies, process innovation and the development of employee competences affect organizational agility.

**Design/Methodology/Approach:** The study used a survey method that was conducted among 312 respondents representing various sectors of activity. The results were subjected to statistical analysis, including mode calculation to identify the dominant opinions of respondents in key areas of the study.

**Findings:** The research showed that investing in modern technologies and process innovation are not perceived as key factors of organizational agility by the majority of respondents, while the development of employee competences was considered one of the most important elements supporting organizational flexibility. This indicates the need for better communication of the benefits resulting from technology and innovation.

**Practical Implications:** The study results suggest that organizations should focus on investing in the development of their employees' competences and better use of available technologies. It is also recommended to create a culture of innovation that promotes rapid adaptation to changing market conditions.

**Originality/Value:** The article brings a new perspective on the factors of organizational agility, emphasizing the special role of employee development in building the flexibility of the enterprise. The originality of the research lies in the detailed analysis of the dominant

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*opinions of respondents regarding the key aspects of organizational agility in various sectors.*

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## **1. Introduction**

Modern businesses operate in an extremely dynamic and demanding environment characterized by constant technological changes, globalization, and growing consumer demands. The ability to respond quickly to these changes has become a key factor in the success of organizations. In the face of these challenges, organizational agility has gained importance, becoming one of the most important elements of management strategies.

Agile organizations can quickly adjust their structures, processes, and strategies, which allows them to effectively adapt to changing market conditions. Flexibility in operation, innovation, and the ability to make decisions quickly are essential elements that allow companies not only to survive, but also to develop and build a competitive advantage.

In the era of rapid technological development and globalization, more and more companies recognize the need to invest in solutions that support their ability to adapt. However, organizational flexibility alone is not enough. It is crucial to understand what specific factors support the development of organizational agility.

Investing in modern technologies, developing innovative processes and improving employee competences are just some of the elements that affect the ability of companies to quickly respond to the changing environment. Understanding these factors is essential for organizations to effectively build their ability to adapt and be flexible.

That is why taking up the subject of research on the development factors of an agile organization is so important. Analysis of these elements allows us to identify areas in which organizations can improve their activities to become more competitive and resistant to change. Understanding how factors such as investment in technology, process innovation or employee competence development affect organizational agility allows companies to better prepare for the challenges of the future.

## **2. Literature Review**

### ***Organizational agility as a response to the volatility of the business environment:***

Organizational agility is increasingly seen as a key element enabling companies to function effectively in a changing business environment. Today's companies must cope with dynamically changing market conditions, which include rapid technological progress, changing consumer preferences, globalization, as well as unpredictability resulting from macroeconomic and political factors (Sumukadas and Sawhney, 2012).

Organizational agility means the ability of a company to quickly adapt its structures, processes and strategies in response to these changes. Flexibility in action becomes not only a competitive advantage, but also a condition for survival in markets that are subject to constant transformations (Wisniewski, 2019; Tyagi *et al.*, 2023).

The foundation of organizational agility is the ability to make decisions quickly and respond effectively to changes, both internal and external. Unlike traditional management models, which were based on long-term, static plans, agile organizations are characterized by shorter decision-making cycles, which allows for better use of new market opportunities and minimizing the risk associated with unforeseen threats (Attar, Almusharraf, Alfawaz, and Hajli, 2022).

An important aspect of organizational agility is also the flexibility of resources, both human and technological. Companies must be ready to quickly regroup forces, invest in new technologies or restructure departments to best respond to the requirements of the environment (Kocot and Kwasek, 2022).

An important factor influencing a company's ability to adapt is its organizational culture. Organizations that promote openness to change, innovation, and rapid learning have a better chance of surviving in a dynamic environment (Luthar and Barkin, 2012). The culture of an agile organization is based on the willingness to experiment, accept failures as a natural part of the innovation process, and a constant drive for improvement. Employees must not only be competent, but also ready to take on new challenges and continuously develop (Chen and Li, 2021).

Organizational agility is also related to effective risk management. In an environment full of uncertainty, organizations must be able to identify potential threats and respond to them quickly. Agile organizations are characterized by a proactive approach to risk, which means that they not only react to changes, but also try to anticipate them and prepare appropriate action scenarios.

In this way, companies minimize losses related to unexpected events, while taking advantage of opportunities that appear as a result of market changes (Felipe, Leander, Roldan, and Leal-Rodriguez, 2020). At the operational level, organizational agility translates into the ability to quickly reorient production

processes, introduce new products and services, and adapt the business model to changing customer needs.

Companies must be ready to continuously monitor the market and flexibly respond to changes in demand, technology, and regulations (Parker, Wall, and Cordery, 2008). In this context, agile project management also plays a key role, allowing for rapid iteration and gradual adaptation of solutions to new requirements (García-Granero, Piedra-Muñoz, and Galdeano-Gómez, 2020; Thalassinos *et al.*, 2023).

Organisational agility is not a one-time attribute; it is a continuous improvement process that requires commitment at all levels of the organisation (Alshehhi, Nobanee, and Khare, 2018). Companies that successfully implement an agile approach can not only respond to changes faster, but also better utilize resources, build competitive advantage, and strive for long-term success in a dynamic market environment (Gwozdziwicz and Prokopowicz, 2017).

***The role of innovation in organizational processes as a key element of agility:***

Innovation in organizational processes plays a key role in building organizational agility, because it is through the introduction of new solutions and continuous improvement of activities that companies can effectively respond to dynamic changes in the business environment.

Organizational innovations allow companies to use resources more efficiently, optimize processes and develop new products and services (Awasthi and Awasthi, 2023), which in turn enables better adaptation to changing market conditions. In this context, innovation is not only a matter of technology, but a broadly understood process that covers all aspects of a company's activity, from management, through production, to relationships with customers and business partners (Kwasek *et al.*, 2023).

The ability of an organization to introduce innovations in its processes is one of the most important factors influencing its agility. An innovative approach to process management allows companies to more quickly identify problems that may occur during the execution of tasks and to implement solutions in real time. In this way, the organization does not only react to changes, but actively shapes them, ahead of the competition. It becomes more flexible, and its organizational structures adapt more easily to new conditions, which promotes decision-making and the introduction of innovations at various operational levels (Kowalski, 2019).

Process innovation contributes to organizational agility also by reducing costs and improving operational efficiency. The introduction of new work methods, automation of repetitive tasks and integration of modern technologies with daily activities enable companies to increase efficiency while maintaining the ability to quickly adapt to changes (Nowak, 2020; Sajdak, 2013). An innovative approach to processes allows for the elimination of unnecessary stages that may slow down

business and for quick adaptation to new market requirements, which is crucial in the context of agility (He and Harris, 2021).

The role of innovation in organizational culture cannot be ignored either. Organizations that focus on innovation encourage employees to be creative, test new solutions and actively seek improvements in their daily work. It is this innovative approach to internal processes that allows for the creation of a space for employees where they can share ideas and take responsibility for implementing changes (Erdil, 2014).

Organizational agility requires employees to be flexible, open to new ideas and ready to adapt – innovation in processes supports this approach, which in turn increases the organization's ability to respond quickly to changing external conditions (Munodawafa and Johl, 2019).

Innovation in organizational processes is also important for change management. In a dynamic environment where change is inevitable, the ability to quickly introduce innovations allows companies to better manage these changes. Instead of perceiving change as a threat, organizations that effectively introduce innovations see it as an opportunity to improve their processes. Innovations become a tool that allows you to flexibly respond to challenges and opportunities that appear in the market environment (Cappelli and Tavis, 2018).

Managing innovation in processes can also increase the organization's ability to collaborate with other entities (Ciekanowski, 2020). Cooperation with external business partners, technology providers or research institutes often leads to the exchange of knowledge and the joint creation of new solutions (Rzepka, 2019).

Organizational agility requires not only internal flexibility, but also the ability to cooperate and integrate with the environment (Chen and Siau, 2020). An innovative approach to processes allows for better use of partners' resources and the creation of synergies that contribute to greater adaptability and flexibility of the enterprise (Górnicka, 2020).

Finally, innovation in organizational processes helps build competitive advantage. Companies that can effectively implement innovations not only respond faster to changes, but also actively shape market trends. Innovation becomes a source of competitive advantage (Adamik, 2019), enabling companies to outpace their competitors by adapting products, services and processes to changing customer needs more quickly.

In the context of organizational agility, innovation is therefore an indispensable element that allows for quick, effective and efficient change management in a dynamic business environment (Malinowski, 2021).

***Development factors of an agile organization:***

The development factors of an agile organization are key in the context of building flexibility and adaptability of enterprises in a changing business environment. Each of these factors influences how the organization responds to the challenges related to a dynamic market, growing competition, and rapid technological development (Bukowska, 2023).

Organizational agility is not one-dimensional – it is based on many different elements that together allow the company to react quickly to changes and make better use of emerging opportunities (Sallnäs and Björklund, 2020).

One of the key factors supporting the development of agility is investing in modern technologies. Technologies are playing an increasingly important role in the functioning of modern companies, enabling the automation of processes, improving communication and increasing operational efficiency.

Organizations that invest in modern technological solutions have greater opportunities to quickly adapt to changing market conditions, and are also able to introduce innovations faster than the competition. These investments, although they may involve initially high costs, bring long-term benefits in the form of greater operational flexibility, better data management and faster response to market needs. (Fiddler, 2017).

In parallel with investments in technology, the innovation of implemented processes is an important aspect of the development of an agile organization. Innovation in this context does not only refer to the introduction of new products, but also to the optimization of existing processes and the implementation of more effective methods of operation.

The ability of an organization to constantly improve its processes and adapt them to changing requirements is one of the pillars of agility. Organizations that are characterized by a high level of process innovation are able to react faster to market changes, which translates into greater flexibility and the ability to compete in dynamic conditions (Jones and Adam, 2023).

Another important factor in the development of an agile organization is the effective use of tools based on modern technologies (Brown and Jones, 2018). This means not only investing in technology, but also the ability to effectively use available tools that can support process management, task automation, data analysis or communication within the company.

Companies that can fully utilize modern technological tools can operate more flexibly, adapt to changes faster and manage information better (Bray *et al.*, 2019). As a result, such organizations become more competitive and their internal structures are more adaptive (Nath and Agrawal, 2020).

An equally important factor in the development of an agile organization is the possibility of development, understood as providing employees with conditions for continuous improvement and acquiring new skills. Organizations that focus on the development of their employees become more agile, because a team with a wide range of competencies is more flexible and better prepared for changing market requirements (Borowski, 2021).

In such an environment, employees are able to take on new challenges, adapt to new tasks and implement innovations effectively. The possibility of personal and professional development of employees is therefore one of the foundations of building organizational agility, because it strengthens the company's ability to respond to changes and increases employee involvement in innovative activities (Karnani, 2010).

The last but not least factor in the development of an agile organization is the ability to improve employee competences. Organizational agility is based on a dynamic work environment, in which employees are required to have not only specialist skills, but also a willingness to constantly learn and adapt.

Organizations that invest in improving the competences of their employees gain not only more flexible teams, but also a competitive advantage resulting from their ability to react faster to changing market conditions. The ability of employees to acquire new skills and improve their qualifications allows the company to better adapt to technological and market changes, which in turn increases its overall agility and flexibility (Joiner, 2019).

Organizational agility is therefore the result of the interaction of several key factors – technology, innovation, process development, and above all the ability to continuously improve employee competences. Companies that effectively combine these elements gain the ability to quickly respond to market changes, build a competitive advantage and effectively manage in a dynamic environment (Crane and Matten, 2016).

### **3. Methods and Materials**

#### **3.1 Methods**

The aim of the research was to identify key development factors of an agile organization, as well as to analyze how various aspects related to modern technologies, process innovation, development opportunities and improving competences are assessed by respondents.

A hypothesis was put forward that investing in modern technologies and the possibility of improving competences will be considered the most important elements supporting the development of an agile organization. In order to verify this

hypothesis, research questions were asked regarding the importance of individual factors, such as: to what extent does investing in modern technologies affect the development of the organization? How are the opportunities for development and improving competences assessed in the context of organizational agility?

The research was conducted using a survey method between April and June 2024. The survey contained questions regarding the assessment of five key development factors. The results of the responses were statistically analyzed, including by calculating the mode for each factor.

The use of the mode allowed us to identify the most frequently selected responses, which allows us to determine the dominant opinions in the study group. The mode indicates which aspects are perceived as the most important or marginal, which provides valuable information about the preferences and attitudes of the study participants.

During the research, sociodemographic data on the surveyed enterprises were obtained. Among the dominant types of activity, the largest number, as much as 65.1%, were service enterprises, while 25.6% of the surveyed companies conducted commercial activity, and only 9.3% carried out production activity.

In terms of the number of employees, the largest group (23.1%) were enterprises employing from 0 to 9 people. Companies employing from 10 to 49 employees accounted for 20.5 % , while enterprises with the number of employees from 50 to 249 people accounted for 15.7%. Enterprises employing from 250 to 999 people accounted for 21.8 % , and those with the number of employees of 1,000 or more people – 18.9%.

In terms of scope of activity, the largest number of companies, 36.2 % , operated internationally. 30.4% of companies operated domestically , while 21.5% of companies operated locally. Regional scope covered 11.9 % of the surveyed companies. In terms of education, 57.1 % of respondents had higher education, 9.3% had higher vocational education, and 33.7% had secondary education.

In terms of age, the largest number of respondents, 48.4%, were between 20 and 30 years old. 12.8% of respondents were between 31 and 40 years old, while 21.2% were people between 41 and 50 years old. People between 51 and 60 years old made up 10.9% of respondents, and the oldest group, over 60, made up 6.7%.

### **3.2 Results**

The research aimed to examine the development factors of an agile organization by analyzing the respondents' answers in five categories (see Table 1). The first factor was investing in modern technologies, where 23 people strongly disagreed with this statement, 32 people rather disagreed, 41 people had no opinion, while 137 people



rather agreed, and 79 people strongly supported this approach. In relation to the innovativeness of the implemented processes, 17 respondents expressed strong opposition, 34 rather disagreed, 46 people remained without an opinion, and 130 rather agreed with this factor, with 85 respondents expressing strong support.

The next factor examined was tools using modern technologies, where 17 people strongly disagreed with their importance, 40 people rather had a similar opinion, 38 respondents had no opinion on this topic, 116 rather agreed, and 101 strongly supported this issue. The possibility of development was assessed by 28 people as definitely not important, 33 people rather disagreed, 38 remained without an opinion, 95 rather agreed with this possibility, and 118 respondents strongly supported it.

The last factor analyzed was the possibility of improving competences. Here too, 28 respondents considered it not to be an important factor, 43 rather disagreed with its importance, 31 had no opinion, while 105 rather agreed with its importance, and another 105 strongly supported this factor as important for the development of an agile organization.

**Table 1.** *Development factors of an agile organization*

	<b>Definitely NOT</b>	<b>Rather not</b>	<b>I don't have an opinion</b>	<b>Rather YES</b>	<b>Definitely YES</b>
Investing in modern technologies (1)	23	32	41	137	79
Innovation of the implemented processes (2)	17	34	46	130	85
A tool using modern technologies (3)	17	40	38	116	101
Growth Opportunities (4)	28	33	38	95	118
Opportunity to improve competences (5)	28	43	31	105	105

*Source:* Own study based on research.

In order to analyze the research results more precisely, the mode was used, i.e. the value most frequently occurring in a given data set. The mode allows to identify which answers were most frequently chosen by respondents in each of the categories of development factors of an agile organization.

Its use is important because it indicates the dominant trend in opinions, allowing to assess which factors were most often considered crucial or marginal. Thanks to this, it is possible to better understand how respondents evaluate individual elements and

which opinions prevail in the studied group, which provides valuable information about the preferences and attitudes of the study participants.

**Table 2.** *Dominant for developmental factors*

	<b>Dominant</b>
Investing in modern technologies (1)	23.0
Innovation of the implemented processes (2)	17.0
A tool using modern technologies (3)	17.0
Growth Opportunities (4)	28.0
Opportunity to improve competences (5)	105.0

**Source:** *Own study based on research.*

Table 2 presents the dominant for the development factors of an agile organization, which allows us to determine which answers were most frequently chosen by respondents in relation to each of the analyzed aspects. In the context of the data from Table 1, it can be seen that in the case of investing in modern technologies, the dominant answer was "Definitely NOT" with a value of 23.

This means that the largest number of respondents expressed a definite lack of agreement on this factor as an important element of the development of an agile organization. Similarly, in the case of innovativeness of implemented processes and tools using modern technologies, the dominant answer was also the lowest category, which indicates a tendency for a negative assessment of these areas by a significant part of the respondents.

In the case of development opportunities, the mode was 28, which also means that the most frequently chosen answer was "Definitely NOT". This is interesting in the context of the overall results, because Table 1 shows that despite high values in the categories "Rather YES" and "Definitely YES", a significant part of the respondents were of the opinion that the possibility of development is not important.

In the case of the possibility of improving competences, the mode was 105, which means that the largest number of respondents expressed strong support for this factor, which confirms the high level of acceptance also visible in Table 1. The mode in this category indicates an unequivocally positive assessment of this aspect as a key element in the development of an agile organization.

The use of dominant in this context allows for a better understanding of which opinions are most common, thus providing a picture of the most prevalent attitudes among respondents.

#### **4. Discussion**

The conclusions from the conducted research show that individual development factors of an agile organization are assessed by respondents in a diverse way. One of the most surprising results is the relatively low support for investing in modern technologies, which are often considered a key element of the development of an organization in today's dynamically changing business environment.

The most frequently chosen answer here was "Definitely NOT", which means that a significant number of respondents do not consider this factor to be important. Similarly, the innovativeness of the implemented processes and tools using modern technologies were also assessed quite critically, which may suggest that these aspects are not yet fully perceived as key to the development of an agile organization.

On the other hand, the analysis of the results concerning the opportunities for development and improving competences indicates a more positive attitude of the respondents in these areas. Although in the case of development opportunities the answer "Definitely NOT" also dominated, which may indicate certain limitations in perceiving this factor as important, the results in the categories "Rather YES" and "Definitely YES" suggest that this is an issue important for a significant part of the respondents.

In turn, the opportunity to improve competences was unequivocally assessed positively, with the highest dominance of "Definitely YES", which clearly indicates that this is an aspect perceived as key to the agility of the organization.

In summary, the research showed that although modern technologies and process innovation are not widely recognized as key development factors, the issue of personal development and improving competences is highly valued by respondents.

These results may suggest that companies that want to develop organizational agility should focus on creating conditions conducive to employee development, while better communicating the benefits of investing in technologies and process innovation. This can help build a more sustainable and effective approach to managing organizational agility.

#### **5. Conclusions**

Based on the research results, several recommendations can be made for companies that want to develop their organizational agility. First of all, it is advisable to increase awareness among employees and management about the benefits of investing in modern technologies and innovation of implemented processes. Although these aspects were not clearly recognized as key in the research, they can

play a significant role in the long-term development of the company, especially in the context of rapidly changing markets and technologies.

At the same time, it is important for companies to put more emphasis on the professional development opportunities of their employees. The research results clearly indicate that respondents attach great importance to the possibility of improving competences, which means that companies should invest in training, development programs and creating conditions conducive to personal and professional development. Investing in the development of employee competences not only increases their motivation and commitment, but also contributes to building a more agile and flexible organization.

In addition, it is important for companies to take into account the individual needs of their employees, creating personalized development paths that will be tailored to their aspirations and capabilities. Taking care of employee development should go hand in hand with creating an open organizational culture in which innovation and agility are promoted and rewarded.

This in turn can support building a competitive advantage, allowing companies to adapt faster to changing market conditions. It is also recommended that companies strive to integrate modern technologies and innovations with internal processes, while better communicating the benefits of these changes. This will allow for building a more innovative and effective work environment, in which technology supports the development of the organization, and is not perceived as a burden or an irrelevant element.

Future research directions may focus on a more detailed analysis of the impact of modern technologies on organizational agility, taking into account industry differences and the specificity of enterprises with different scope of activity. It is worth examining which specific technologies and tools are most effective in the context of building agility, and how different technological strategies affect innovation processes.

Another important direction may be the analysis of the impact of organizational culture on the development of employee competencies and their motivation to actively participate in innovation processes. Research may also include the impact of external factors, such as changing legal regulations or global market trends, on the perception of organizational agility.

In the future, it is also worth considering comparative studies between different regions or countries to identify possible cultural differences in the perception of agility and innovation in organizations. Additionally, long-term effects of investing in the development of employee competencies may be examined, including their impact on the efficiency and competitiveness of organizations in various sectors of the economy.

## **6. Limitations**

The limitations of the research result from several important factors that may affect the full interpretation of the results. First of all, the research method based on surveys, although it allows for the collection of a large amount of data, carries the risk of subjectivity.

Respondents, depending on their own experiences, perspectives or specific working conditions, could interpret the questions and assess the individual development factors of an agile organization differently. This may lead to discrepancies in the answers, which are not always the result of actual differences in experiences, but rather different perceptions.

Another limitation is the composition of the research sample. The research was conducted on a sample of 312 respondents, which, although relatively large, may not reflect the full diversity of companies operating in the market. This sample included companies of different sizes and types of activities, but was not necessarily representative of all industries or regions.

The limitation to specific companies with a specific business structure may mean that the results cannot be fully generalized to other economic sectors or other regional contexts. In particular, differences in the scope of companies' operations (local, regional, international) and the type of business (manufacturing, trade, services) may influence different perceptions of agility and development in organizations.

Additionally, the research was conducted over a specific period of time, which means that the results reflect the situation at the time of the study (April-June 2024). The rapidly changing business environment, new technologies, or changing market conditions may affect the future perception of organizational agility factors. Therefore, these studies do not take into account possible changes in trends that may occur after their completion, which limits the long-term perspective.

Moreover, the research results are based on the assessment of general development categories, such as process innovation or technology investments, but the lack of detailed analyses of specific technology tools or types of innovations may be a limitation in accurately identifying which specific solutions are most valuable for the development of an agile organization. A more in-depth analysis could reveal which aspects of these broad categories are crucial for the effectiveness of agile strategies.

Finally, it is also worth noting that the nature of the collected data did not allow for an in-depth analysis of the relationships between factors, which could provide a more complete picture of the interactions between different aspects of organizational agility.

## **7. Conflicts of Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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