

---

A N N A L E S  
UNIVERSITATIS MARIAE CURIE-SKŁODOWSKA  
LUBLIN – POLONIA

VOL. LIX, 4

SECTIO H

2025

---

ANNA LEMAŃSKA-MAJDZIK

a.lemanska-majdzik@pcz.pl

Częstochowa University of Technology. Faculty of Management

ul. Dąbrowskiego 69, 42-201 Częstochowa, Poland

ORCID ID: <https://orcid.org/0000-0003-3484-3498>

*Capabilities in the Area of Flexible Activities and Market  
Competitiveness – the Perspective of Silesian Enterprises*

**Keywords:** organizational flexibility; flexible capabilities; competitiveness; turbulent environment; enterprise management

**JEL:** L2; L26; M2

**How to quote this paper:** Lemańska-Majdzik, A. (2025). Capabilities in the Area of Flexible Activities and Market Competitiveness – the Perspective of Silesian Enterprises. *Annales Universitatis Mariae Curie-Skłodowska, sectio H – Oeconomia*, 59(4), 47–61.

**Abstract**

**Theoretical background:** The business environment is a range of conditions and determinants that shape the functioning of enterprises on the market. Hence, the ability of enterprises to exhibit flexible behaviour or actions in the area of the organization's functioning becomes important. The idea of flexibility of action in the process of managing enterprises consists in such actions, thanks to which the organization can easily and quickly adapt to changes taking place in its business environment. It can be indicated that dynamic capabilities are specific capabilities of key importance, including organizational resources, which ensure achieving competitive advantage in the changing and turbulent business environment of the enterprise. Flexibility is a property that enables an organization to adapt to changes in its environment, making it a desirable feature for every enterprise, regardless of size or business profile. An enterprise characterized by the capability to take flexible actions is open to all changes, and proper management of these changes is necessary not only to gain a competitive advantage. Achieving competitive advantage requires constant change, adaptation, and flexibility, which is reflected in the level of capability to take flexible actions in the areas of the organization's functioning.

**Purpose of the article:** The aim of the paper is to identify the capabilities in the area of flexible organizational activities that determine the growth of the competitiveness of small and medium-sized enterprises.

**Research methods:** The inference is based on the results of our own study on a group of 141 small and medium-sized Silesian manufacturing enterprises. The proper study was conducted in 2022 and was preceded by a pilot study. During the study, a research tool was used, i.e. an original survey questionnaire. The survey questionnaire was subjected to a reliability assessment. After formal assessment, the collected data was subjected to statistical analysis, including the use of descriptive statistics and nonparametric statistics.

**Main findings:** The results of the study showed that the declared level of capability to act flexibly in the surveyed companies was not high in general, at 3.84 on a 5-point scale. The highest level of capability to act flexibly was declared by the surveyed companies in the operational area. The lowest level of capability to act flexibly was indicated by companies in the financial area. It turns out that the level of the studied capability to act flexibly increased significantly after the COVID-19 pandemic. According to research, as many as 82% of companies had lower levels of flexible capabilities before the pandemic. It turned out that nearly 69% of Silesian small and medium-sized manufacturing enterprises know their company's market competition well or very well. The level of market competitiveness of the surveyed companies is quite low, at only 3.35, and does not differ significantly across groups of companies depending on their size. The results of the analysis indicated that there is a statistically significant positive relationship between the capability to perform flexible actions in general and the level of market competitiveness. The analysis conducted using the Kendall tau statistic showed that there is a statistically significant positive relationship between all the distinguished areas of flexibility of the companies' activities and the level of their competitiveness. In all cases, this relationship is weak but, what should be pointed out, statistically significant. The highest value of the Kendall tau index occurs in the case of operational flexibility, and the lowest, interestingly, occurs in the case of technological flexibility.

## Introduction

It is now acknowledged that an organization's market competitiveness is conditioned by a variety of factors. A variety of factors, variables, and business environment conditions influence how businesses operate in the marketplace. Hence, the ability of enterprises to be flexible in their behavior or actions in the area of the organization's functioning becomes important. The concept of flexibility in enterprise management activities refers to the actions that enable the organization to swiftly and readily adjust to changes in its business environment. Dynamic capabilities can be defined as specific capabilities of critical relevance, such as organizational resources that guarantee the attainment of a competitive advantage in the enterprise's dynamic and chaotic business environment (Pakulska, 2020, p. 11; Teece et al., 1997).

Flexibility is therefore a property that allows an organization to cope with changes in the environment. In the literature, the concept of flexibility is considered through concepts such as adaptability, agility, mobility, and the capability to make modifications and improvements (Brown et al., 2020; Jagoda, 2015). It can therefore be indicated that a feature such as flexibility is desirable by every enterprise regardless of its size and business profile because it allows the organization to function in the currently difficult conditions of the market environment (Morgan et al., 2019; Verdú & Gómez-Gras, 2009). Thanks to the flexibility of the organization, as indicated in the literature, enterprises achieve the ability to exist and compete on the market (Chatterjee et al., 2022; Weaven et al., 2021).

A company that exhibits flexibility is receptive to any changes that may arise during its operations, and effective handling of these changes is essential for both gaining a competitive edge and surviving in the contemporary business climate. A flexible company has the ability to react quickly to changes while adapting the company's internal structures and external relations to the challenges posed (Osbert-Pociecha, 2004; Osbert-Pociecha et al., 2008).

The aim of the paper is to identify the capabilities in the area of flexible organizational activities that determine the growth of the competitiveness of small and medium-sized enterprises. The study, which used the author's survey questionnaire, was conducted in 2022. The research tool subjected to reliability analysis allowed obtaining data that can be subjected to statistical analysis. Data analysis for the purpose of drawing conclusions and recommendations is based on research on a group of Silesian small and medium-sized manufacturing enterprises. The capability to respond to changes in the environment and the ability to take flexible actions allow companies to compete in the market in difficult business conditions. The level of competitiveness of companies determines the level of possibilities for flexible actions of the organization. Changes in business conditions and organizational difficulties force organizations to take such dynamic actions that allow for flexible functioning in the era of high competitiveness. A greater degree of market competitiveness can be attained by developing more adaptable and flexible action skills. The paper raises the level of understanding regarding businesses' organizational flexibility in relation to market competitiveness. It shows the relationship between the level of market competitiveness and the capability of small and medium-sized enterprises to be flexible. Also, thanks to the conclusions drawn on the basis of own research, it is possible to indicate recommendations for the management of small and medium-sized enterprises in difficult market conditions, including indicating which capabilities to be flexible determine the increase in market competitiveness.

## Literature review

Flexibility in management sciences is considered a desirable attribute of a modern organization. It depends on the presence of dynamic capabilities to implement changes and the ability of the enterprise to respond to the changing business environment. Flexibility of action means that entrepreneurs flexibly modify plans or decisions in a continuous manner, adapting to the changing circumstances of the company's operation (Brettel et al., 2012). The currently unfavorable business environment directly requires organizational flexibility from enterprises. It is perceived as a dynamic ability to keep up with changes in the market and quickly respond to unpredictable and unexpected business conditions (Chatterjee et al., 2022; Peng et al., 2015). Moreover, Sharma et al. (2010) indicated that if there are major changes in the business environment of the company, the company should respond more to these

changes in order to ensure competitive advantage (Weaven et al., 2021). Flexibility of the operations of enterprises is a response to unexpected changes in the environment, which are currently common. The literature indicates that these activities are critical in the case of the functioning of enterprises in an unstable environment (Harrald, 2006). Lyu et al. (2022) and Bhupendra and Sangle (2022) emphasize that the key to creating value in the organization, including creating market competitiveness, is organizational flexibility. Achieving competitive advantage requires continuous change, adaptation and flexibility, which is reflected in the level of market competitiveness of enterprises (Farida & Setiawan, 2022).

Because integrating partial flexibility creates a synergistic effect, the enterprise's organizational flexibility should be viewed through the lens of its dimensions or partial flexibility (Khin et al., 2012). According to Kasiewicz (2009), the synergy effect in the context of organizational flexibility is the excess of advantages brought about by the flexibility of the organization's individual levels relative to its overall flexibility. Therefore, it is important to recognize several domains of adaptable activities that enhance the enterprise's total capacity to develop skills under the effect of a changing business environment (De Toni & Tonchia, 2005; Eapen, 2009). The literature review (Bereźnicka, 2024; Dai et al., 2018; Joseph Jerome et al., 2022a, 2022b; Lahiri et al., 2020; Malca et al., 2021; Nagaraj et al., 2020) allows us to indicate a list of factors determining organizational flexibility as a set of organizational and management capabilities:

- resource constraints,
- competitor pressure,
- technological skills,
- support of management,
- supply chain trust,
- access to information,
- innovativeness,
- entrepreneurial orientation,
- supplier collaboration,
- client collaboration,
- control capability,
- manufacturing constraints.

The presented list is not complete, if only because of numerous studies in the aspects of business activity and the size of entities. However, it indicates the direction in which the conditions of organizational flexibility should be sought, including operational, financial, structural and technological.

Specific capabilities of strategic importance for enterprises, including resources, are processes, competencies and skills that ensure the achievement of competitive advantage in a turbulent environment. These are the so-called dynamic capabilities, which constitute the essence of organizational flexibility (Pakulska, 2020). Successful companies strategically manage their competency structure, where specialization fits

stable, repeatable processes, versatility supports innovation and flexibility, and mixed models (T-shaped) combine depth and breadth of competencies (Koller et al., 2020).

Based on the theory of Teece et al. (1997), it can be indicated that the capabilities of performing flexible actions of enterprises include the dynamic skills of the enterprise to integrate, build and configure both internal and external competencies in order to quickly adapt to changing environmental conditions. Therefore, it can be assumed that flexible capabilities are a set of skills that enable the modification of operational procedures and the variability of resources and skills for the purpose of achieving an appropriate adjustment to changing market needs and the growth of competition.

Based on the literature review and observations of the business environment, the main hypothesis was formulated as follows: H: The level of market competitiveness of small and medium-sized enterprises increases with the increase in the capability to take flexible activities in the area of organizational functioning.

## Research methods

The aim of the paper is to identify the capabilities in the area of flexible organizational activities that determine the growth of the competitiveness of small and medium-sized enterprises. The study was conducted in 2022 on a group of small and medium-sized enterprises. The surveyed enterprises operated in the Silesian Voivodeship. A pilot study and a literature review came before the main study. The literature review allowed us to verify the research questions and formulate research hypotheses. This paper indicates only part of the results of the conducted study, which allowed us to achieve the objective of the study. A total of 141 enterprises participated in the study, and the size of the enterprise was determined by the size of employment. Therefore, 90 small companies employing from 10 to 49 employees and 51 medium-sized companies employing from 50 to 249 employees participated in the study. The headquarters of the surveyed enterprises and their core business were located in the Silesian Voivodeship, but over  $\frac{3}{4}$  of the respondents declared a nationwide or international scope of their activities. The selection of the research sample was purposeful.

During the research, an original survey questionnaire was used, consisting of closed questions. The survey questionnaire consisted of a metric and several parts corresponding to the researched issues. During the data collection from respondents, a 5-point Likert scale was used, which is one of the most commonly used in social research. In addition, the data obtained in this way can be aggregated and analyzed in a managerial approach (Babbie, 2004, pp. 191–192; Sheng et al., 2011).

The author's questionnaire used in the study was subjected to reliability tests. The reliability of the research tool was tested using the Cronbach's alpha index (Hair et al., 2009; Taber, 2018). It turned out that the value of the index for the distinguished

variables in the case of flexible activities of enterprises was 0.812, and for the level of competitiveness 0.795, respectively. It can therefore be indicated that the research scales constructed in the questionnaire meet the criteria and their use is justified (George & Mallery, 2016; Wilcox, 1992). Competitiveness was measured based on “competitive intensity”. I adapted the five items used by Lyu et al. (2022) from Jaworski and Kohli (1993) to assess the degree to which the company faces competition.

## Results

The study of the relationship between the level of the company’s capability in the area of flexible activities and the level of market competitiveness was carried out in several stages. In the first step, the level of capability for flexible activities was examined in general and divided into individual organizational areas. During the study, it was assumed that the organizational flexibility of the company consists of partial flexibilities (Moroz, 2013, p. 55). The flexibility of activities in enterprises in the study was diagnosed based on an approach in which four basic dimensions of flexibility were distinguished that build organizational flexibility in general, i.e. flexibility of activities in the operational area, flexibility of activities in the financial area, flexibility of activities in the area of the organizational structure, and flexibility of activities in the area of technology and new solutions related to the company’s activities, which were built from appropriate items (Yeniaras et al., 2021). Therefore, respondents assessed, on a scale of 1 to 5, to what extent their company is capable of flexible activities in the selected area of activity.

During the analysis, descriptive statistics of individual variables for all the companies studied will be presented first. The variables (areas of flexible activities and the level of market competitiveness) were built by averaging the results of the questions included in a given variable. This means that the results for individual variables can be directly compared, drawing conclusions as to where their level is higher/lower.

The research showed that the highest level of capability to take flexible activities was declared by the surveyed manufacturing companies in the operational area, which concerned flexible changes in the production area in line with market demand, including the range of products coming onto the market. The respondents assessed the flexible capabilities in the discussed area at a level of 4.00 on a 5-point scale, and this level deviates from the average by  $\pm 0.978$ . It turns out that at least 25% of the respondents assessed the capability to take flexible activities in the operational area at a level of up to 3.00 and at least 50% at a level of up to 4.00. The next place was taken by the level of capability to take flexible activities in the area of technologies used in the company’s functioning process, including, among others, updating computer systems related to running the company but also to achieving production goals. The respondents assessed the flexible capabilities in the discussed area at a level of 3.98 on a 5-point scale, and this level deviates from the average value by

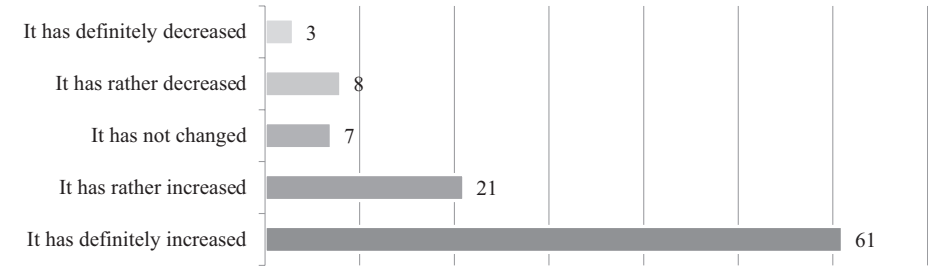
+/-0.914. It turns out that at least 25% of the respondents assessed the capabilities for flexible activities in the operational area at the level of up to 3.67 and at least 75%, respectively at the level of up to 4.67. The lowest level of the capabilities for flexible activities was indicated by companies in the area of finance, at the level of only 3.48 on a 5-point scale, and this level deviates from the average value by +/-0.872. Moreover, it can be indicated that the declared level of the capabilities for flexible activities in the surveyed companies in general was not high, because at the level of 3.84 on a 5-point scale, this level deviates from the average value by +/-0.645. It turns out that at least 25% of respondents assessed the overall capacity for flexible activities in their company at a level of up to 3.36 (Table 1).

**Table 1.** Descriptive statistics for the capability of Silesian enterprises to act flexibly (*n* = 141)

Variable	Mean	Median	Min	Max	Q25	Q75	SD
Activities in the area of operational flexibility	4.00	4.00	1.00	5.00	3.00	5.00	0.978
Activities in the area of financial flexibility	3.48	3.67	1.00	5.00	3.00	4.00	0.872
Activities in the area of structural flexibility	3.94	4.00	1.33	5.00	3.33	4.67	0.789
Activities in the area of technological flexibility	3.98	4.00	1.33	5.00	3.67	4.67	0.914
Total	3.84	3.91	2.09	5.00	3.36	4.27	0.645

Source: Author’s own study.

Moreover, respondents declared that the level of the studied capability for flexible activities increased significantly after the COVID-19 pandemic. The research showed that as many as 82% of respondents stated that before the pandemic, the level of capability to do activities flexibly in their company was rather or definitely lower. Only 7% of respondents declared that their company’s capability to do activities flexibly did not change despite the pandemic. And only 11% of the surveyed companies assessed that before the pandemic, the level of capability to act flexibly in their company was higher (Figure 1).



**Figure 1.** The level of capability for flexible activities in Silesian enterprises after the COVID-19 pandemic (*n* = 141)

Source: Author’s own study.



In the next step, the level of competitiveness of Silesian enterprises was examined. In the case of market competitiveness, its level was examined based on the theory of Narver and Slater (1990), in which the dimension of orientation to competition was selected, which was adapted to production activity and consisted of appropriate items. Therefore, respondents assessed, on a scale of 1 to 5, what the level of competitiveness of their enterprise is in relation to other enterprises (competing) on the market.

First, the extent to which the surveyed companies know their market competition was examined. It turned out that nearly 69% of Silesian small and medium-sized manufacturing companies know their company's market competition well or very well. Over 21% of the respondents assessed that they knew their market competition, but only in part; in most cases, respondents in this group declared that they knew their competition by about 40%. Less than 9% of the surveyed companies indicated that they did not know their market competition.

Then, in the next step, the level of competitiveness of the surveyed enterprises was examined in relation to competing companies on the market. The results of the study showed that Silesian small and medium-sized enterprises assess their level of market competitiveness, on a 5-point scale, at a level of only 3.35 in relation to competing companies, and this level deviates by  $\pm 1.109$  from the average value. In addition, 50% of the respondents assessed the competitiveness of their company at a level of up to 3.40. Among medium-sized enterprises, the level of competitiveness in relation to other companies on the market is 3.38, and this level deviates from the average value by  $\pm 0.969$ . In addition, 75% of the respondents assessed the competitiveness of their medium-sized enterprise at a level of up to 4.00. The study showed that the level of competitiveness of small enterprises in relation to competing companies on the market is 3.33, and this level deviates from the average value by  $\pm 1.185$ . At the same time, 75% of the respondents assessed the competitiveness of their small enterprise at a level of up to 4.40 (Table 2).

**Table 2.** Descriptive statistics for the level of competitiveness of Silesian enterprises ( $n = 141$ )

Variable	Mean	Median	Min	Max	Q25	Q75	SD
Small enterprises	3.33	3.20	1.00	5.00	2.60	4.40	1.185
Medium-sized enterprises	3.38	3.40	1.00	5.00	2.60	4.00	0.969
Total	3.35	3.40	1.00	5.00	2.60	4.20	1.109

Source: Author's own study.

The results of the study indicate that the level of competitiveness of Silesian enterprises is quite low and does not differ significantly in groups of enterprises due to their size. Therefore, it is worth examining what activities of organizations determine the level of competitiveness of enterprises. In connection with this, the research question was posed: Do the capabilities of enterprises to act flexibly in the areas of functioning of the organization determine the level of market competitiveness of small and medium-sized enterprises?



In the next stage of the analysis, the relationship between the level of market competitiveness of Silesian small and medium-sized enterprises and their capability to act flexibly in the areas of their activities was examined. Kendall's tau coefficient was used for the analysis. Kendall's tau coefficient takes values from -1 to 1. Following Górecki (2011, pp. 325–326) and Wysocki and Lira (2005, pp. 94–95), it was assumed that the value of the coefficient in the range  $<0.1, 0.2>$  indicates a very weak relationship between variables, in the range  $<0.2, 0.4>$  indicates a weak relationship, in the range  $<0.4, 0.6>$  indicates a moderate relationship, in the range  $<0.6, 0.8>$  indicates a strong relationship, and in the range  $<0.8 \text{ to } 1.0>$  indicates a very strong relationship between variables.

**Table 3.** The relationship between the level of market competitiveness and the capability of Silesian enterprises to act flexibly ( $n = 141$ )

The capability of enterprises to operate flexibly	Market competitiveness
Total	0.343*
Operational flexibility	0.307*
Financial flexibility	0.275*
Structural flexibility	0.222*
Technological flexibility	0.217*

\* Kendall's tau rank correlation ( $p\text{-value} < 0.01$ )

Source: Author's own study.

The results of the analysis indicated that there is a statistically significant positive relationship between the capability to take flexible activities in general and the level of market competitiveness, at a probability level of 0.01. This relationship can be described as weak. It can therefore be indicated that the higher the level of capability to take on flexible activities of Silesian small and medium-sized enterprises, the higher their level of competitiveness in relation to other companies on the market will be. The analysis of the correlation of variables, using Kendall's tau statistic, also showed that there is a statistically significant positive relationship between all the distinguished areas of flexibility of the enterprises' actions and the level of their competitiveness. This means that with the increase in the value of one variable (increase in the ability to take flexible activities in one area), the value of the second variable increases (the level of market competitiveness increases). In all cases, this relationship is weak but, as should be pointed out, statistically significant. The highest value of the tau-Kendall index is observed in the case of operational flexibility, and the lowest, interestingly, in the case of technological flexibility and market competitiveness (Table 3).

## Discussion

The highly variable and difficult business conditions in which enterprises operate mean that they must seek market advantages through their actions in the areas of economic activity. Dynamic skills and capabilities to achieve competitive advantage are often a reaction to threats from the environment. The intensity of rivalry and the tendency to take risks may result from the enterprise's capability to act flexibly in its areas of operation (Liu et al., 2020). A review of the literature indicates that the competitiveness of an enterprise means the capability to act efficiently, i.e. effectively and beneficially for the organization, consisting in achieving the goals of the enterprise. The results obtained from the conducted study confirm that the capability to perform activities within the scope of the enterprise's functioning allows it to achieve a higher level of market competitiveness. The literature review indicates that flexibility of operation allows one to achieve the capability to exist and compete on the market (Chatterjee et al., 2022; Weaven et al., 2021). A company characterized by flexibility is open to any changes it encounters during its operation (Yu et al., 2015), and proper management of these changes is necessary not only to gain a competitive advantage but also to survive in the contemporary business environment (Krupski, 2008, p. 18). According to Jain et al. (2020), organizational flexibility is a supplementary organizational capability that enhances the advantages and impact of other capabilities. The purpose of operational flexibility is, as indicated by van der Werdt (2009), to maximize efficiency and minimize risk in an unstable market (Zhao & Wang, 2020), which confirms the results that the capability for flexible behavior in this area allows for competitiveness in a turbulent market. This is the result of companies creating flexible procedures and guidelines to implement and adapt technologies (Maroufkhani et al., 2020). As indicated by Kwiecień (2018), a high level of flexibility in enterprises is a necessary condition for obtaining the capability to adapt to changes. Therefore, the pressure to improve the efficiency of operations is growing, including gaining or maintaining a competitive advantage in the long term.

Greater competition and high customer requirements regarding quality, innovation, diversity, speed of response, and technological progress contribute to changes in business. Introducing changes is difficult but necessary in today's competitive business environment. It turns out that these are the standards that often distinguish the winner from the losers (Kalyani & Prakashan Sahoo, 2011). The conducted research does not confirm the results of other researchers regarding the strong impact of the ability to act in the area of technological flexibility on market competitiveness. Actions in the area of organizational flexibility increase the positive impact associated with technological capabilities, which, in turn, condition innovation (Zhou & Wu, 2010), and the impact of actions in the area of technological capabilities of enterprises depends on their flexibility of operation (Khin et al., 2012). The surveyed enterprises indicate that capabilities in this area affect their competitiveness, but this is not a strong relationship, as one might expect. This may result from the low level

of innovation and use of technology by Polish enterprises (Komisja Europejska, 2023). Furthermore, the research confirmed the findings of Anning-Dorson (2021) that organizational flexibility is a characteristic of SMEs, and the study found that the ability to be flexible, developed using internal resources, is crucial during periods of market turbulence, and this characteristic is “valuable, inimitable, and irreplaceable”.

## Conclusions

The analysis conducted for the purpose of achieving the aim of the paper allowed us to answer the research question: Does the ability of enterprises to take flexible actions in the areas of organizational functioning determine the level of market competitiveness of small and medium-sized enterprises? This also allowed us to identify the level of capacity in the area of flexible activities of the organization determining the growth of the competitiveness of small and medium-sized enterprises. It turned out that the average level of capacity for flexible actions in the surveyed enterprises in general was 3.84 on a 5-point scale. The highest level of capacity for flexible actions was declared by the surveyed production enterprises in the operational area, and the lowest level of capacity for flexible activities was indicated by enterprises in the area of finance. Silesian small and medium-sized enterprises assessed that the capacity for flexible actions significantly increased after the COVID-19 pandemic. As many as 82% of respondents confirmed that before the pandemic, the level of capability to operate flexibly in their company was rather or definitely lower than it is now. Nearly 69% of the manufacturing companies surveyed know their company's market competition well or very well, and the level of market competitiveness of the respondents was assessed, on a 5-point scale, at a level of only 3.35 in relation to competing companies and does not differ significantly in groups of companies due to their employment size. The results of the analysis of the correlation of variables indicated that there is a statistically significant positive relationship between the capability to act flexibly in general and the level of market competitiveness of Silesian enterprises. There is a statistically significant positive relationship between all the distinguished areas of flexibility, in the aspect of the capability to do activities of enterprises, and the level of their competitiveness. In all cases, this relationship is weak but, what should be pointed out, statistically significant. The highest value of the tau-Kendall index occurs in the case of operational flexibility, and the lowest in the case of technological flexibility and market competitiveness. The analysis and research results confirmed the research hypothesis: H: The level of market competitiveness of small and medium-sized enterprises increases with the increase in the capability to take flexible activities in the area of organizational functioning.

The practical objective of the study was to provide a set of guidelines for managers and administrators involved in business activities to help companies become more flexible so that they can adapt to sudden changes in the environment. Therefore,

recommendations for enterprise management can be developed, especially in the case of small and medium-sized manufacturing enterprises. Based on the conclusions from the analysis, it can be indicated that in small and medium-sized enterprises, special emphasis should be placed on the flexibility of operations in the operational area, i.e. the so-called routine maneuverability of the enterprise. Strengthening activities in the area of procedures based on existing structures and organizational goals regarding the number of activities and not the types of activities undertaken within the enterprise increases the competitiveness of the organization on the market. Strengthening quick, short-term activities leading to temporary activity of the enterprise can help to win with market competition. Nevertheless, research has shown that the ability of the enterprise to operate flexibly generally increases market competitiveness, so quick actions and actions adapted to business conditions in all areas of the company's functioning allow it to achieve a satisfactory level of market competitiveness.

The author is aware of the fact that the conducted study has its limitations, which result from the number of enterprises studied and the territory in which the enterprises studied operated. In the future, studies are planned on a larger group of enterprises, a representative group from all over Poland and broader statistical analysis using, e.g. regression or SEM. This will certainly allow for generalization of the study results. In addition, the survey questionnaire used, built from closed questions, did not allow for respondents' own individual opinions, which could certainly diversify the conclusions from the conducted analysis. It would be interesting, in this case, to conduct qualitative research as a supplement to quantitative research. A significant limitation is the determination of the level of potential competitiveness based on survey responses. However, survey research is a fundamental tool in quantitative social research because it allows for the collection of empirical data on opinions, attitudes, behaviors, and social characteristics.

## References

- Anning-Dorson, T. (2021). Organizational culture and leadership as antecedents to organizational: Implications for SME competitiveness. *Journal of Entrepreneurship in Emerging Economies*, 13(5), 1309–1325.
- Babbie, E. (2004). *Badania społeczne w praktyce*. Wyd. Nauk. PWN.
- Bereźnicka, J. (2024). Sources of financial flexibility and investment activity in family farms in Poland. *Annales Universitatis Mariae Curie-Skłodowska – sectio H*, 58(1), 7–22.  
<https://doi.org/10.17951/h.2024.58.1.7-22>
- Bhupendra, K.V., & Sangle, S. (2022). Structural process model of absorptive capacity for stakeholder's integration in decision-making: Dynamic capability perspective. *Society and Business Review*, 17(3), 421–440. <https://doi.org/10.1108/SBR-05-2021-0067>
- Brettel, M., Mauer, R., & Engelen, A. (2012). Corporate effectuation: Entrepreneurial action and its impact on R&D project performance. *Journal of Business Venturing*, 27(2), 167–184.  
<https://doi.org/10.1016/j.jbusvent.2011.01.001>

- Brown, P., Ly, T., Pham, H., & Sivabalan, P. (2020). Automation and management control in dynamic environments: Managing organisational flexibility and energy efficiency in service sectors. *The British Accounting Review*, 52. <https://doi.org/10.1016/j.bar.2019.100840>
- Chatterjee, S., Chaudhuri, R., Vrontis, D., & Thrassou, A. (2022). Impact of organizational dynamic capability on international expansion and the moderating role of environmental dynamism. *International Journal of Organizational Analysis*, 31(5), 1935–1956. <https://doi.org/10.1108/ijoa-10-2021-3003>
- Dai, J., Chan, H.K. & Yee, R.W.Y. (2018). Examining moderating effect of organizational culture on the relationship between market pressure and corporate environmental strategy. *Industrial Marketing Management*, 74, 227–236. <https://doi.org/10.1016/j.indmarman.2018.05.003>
- De Toni, A., & Tonchia, S. (2005). Definitions and linkages between operational and strategic flexibilities. *Omega*, 33(6), 525–540.
- Eapen, G. (2009). *Flexible Companies for the Uncertain World*. CRC Press,.
- Farida, I., & Setiawan, D. (2022). Business strategies and competitive advantage: The role of performance and innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 163. <https://doi.org/10.3390/joitmc8030163>
- George, D., & Mallery, P. (2016). *IBM SPSS Statistics 23 Step by Step: A Simple Guide and Reference*. Routledge.
- Górecki, T. (2011). *Podstawy statystyki z przykładami w R*. Wyd. BTC.
- Hair, J., Black, W.C., Babin, B.B., Anderson, R.E., & Tatham, R.L. (2009). *Análise Multivariada de Dados*. Bookman.
- Harrald, J.R. (2006). Agility and discipline: Critical success factors for disaster response. *The Annals of the American Academy*, 604(1), 256–272. <https://doi.org/10.1177/0002716205285404>
- Jagoda, A. (2015). Elastyczność funkcjonalna jako czynnik przewagi konkurencyjnej małych i średnich przedsiębiorstw. In J. Witkowski & A. Skowrońska (Eds.), *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 382 (pp. 316–323). Wyd. UE we Wrocławiu.
- Jain, N.K., Panda, A., & Choudhary, P. (2020). Institutional pressures and circular economy performance: the role of environmental management system and organizational flexibility in oil and gas sector. *Business Strategy and the Environment*, 29(8), 3509–3525. <https://doi.org/10.1002/bse.2593>
- Jaworski, B.J., & Kohli A.K. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing*, 57(3), 53–70.
- Joseph Jerome, J.J., Saxena, D., Sonwaney, V., & Foropon, C. (2022a). Procurement 4.0 to the rescue: Catalysing its adoption by modelling the challenges. *Benchmarking: An International Journal*, 29(1), 217–254. <https://doi.org/10.1108/bij-01-2021-0030>
- Joseph Jerome, J.J., Sonwaney, V., & Arunkumar, O.N. (2022b). Modelling the factors affecting organizational flexibility in MSMEs. *Journal of Global Operations and Strategic Sourcing*, 17(3), 596–625. <https://doi.org/10.1108/jgoss-06-2022-0075>
- Lyu, Ch., Zhang, F., Ji, J., Teo, T.S.H., Wang, T., & Liu, Z. (2022). Competitive intensity and new product development outcomes: The roles of knowledge integration and organizational unlearning. *Journal of Business Research*, 139, 121–133. <https://doi.org/10.1016/j.jbusres.2021.09.049>
- Kalyani, M., & Prakashan Sahoo, M. (2011). Human resource strategy: A tool of managing change for organizational excellence. *International Journal of Business and Management*, 6(8), 280–286. <https://doi.org/10.5539/ijbm.v6n8p280>
- Kasiewicz, S. (2009). Elastyczność przedsiębiorstwa w koncepcjach zarządzania zasobowego. In S. Kasiewicz, J. Ormińska, W. Rogowski, & W. Urban (Eds.), *Metody osiągnięcia elastyczności przedsiębiorstw* (pp. 11–55). Oficyna Wydawnicza SGH.
- Khin, S., Ahmad, N.H., & Ramayah, T. (2012). The integrated effect of strategic orientations on product innovativeness: Moderating role of strategic flexibility. *Procedia – Social and Behavioral Sciences*, 65, 743–748.
- Koller, T., Goedhart, M., & Wessels, D. (2020). *Valuation: Measuring and Managing the Value of Companies*. McKinsey & Company.

- Komisja Europejska. (2023). *European Innovation Scoreboard 2023*. Urząd Publikacji Unii Europejskiej. <https://data.europa.eu/doi/10.2777/119961>
- Krupski, R. (2008). *Elastyczność organizacji*. Wyd. UE we Wrocławiu.
- Kwiecień, A. (2018). Elastyczność funkcjonowania podmiotów gospodarczych a sukces i kreacja wartości przedsiębiorstwa. *Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach*, 377, 52–65.
- Lahiri, S., Mukherjee, D., & Peng, M.W. (2020). Behind the internationalization of family SMEs: A strategy tripod synthesis. *Global Strategy Journal*, 10(4), 813–838. <https://doi.org/10.1002/gsj.1376>
- Liu, Ch., Yang, J., Zhang, F., Teo, T.S.H., & Guo, W. (2020). Antecedents and consequence of organizational unlearning: Evidence from China. *Industrial Marketing Management*, 84, 261–270. <https://doi.org/10.1016/j.indmarman.2019.07.013>
- Lyu, C., Zhang, F., Ji, J., Teo, T.S.H., Wang, T., & Liu, Z. (2022). Competitive intensity and new product development outcomes: The roles of knowledge integration and organizational unlearning. *Journal of Business Research*, 139(C), 121–133. <https://doi.org/10.1016/j.jbusres.2021.09.049>
- Malca, O., Bolaños, J.P., Acedo, F.J., Rubio Donet, J.L., & Peña-Vinces, J. (2021). Relational flexibility norms and relationship-building capabilities as a mediating mechanism in export performance: Insights from exporting SMEs in an emerging economy, Peru. *International Journal of Emerging Markets*, 16(8), 1745–1768. <https://doi.org/10.1108/IJOEM-09-2019-0735>
- Maroufkhani, P., Tseng, M.-L., Iranmanesh, M., Ismail, W.K.W., & Khalid, H. (2020). Big data analytics adoption: Determinants and performances among small to medium-sized enterprises. *International Journal of Information Management*, 54, 102190. <https://doi.org/10.1016/j.ijinfomgt.2020.102190>
- Morgan, T., Anokhin, S.A., Song, Ch., & Chistyakova, N. (2019). The role of customer participation in building new product development speed capabilities in turbulent environments. *International Entrepreneurship and Management Journal*, 15(1), 119–133. <https://doi.org/10.1007/s11365-018-0549-9>
- Moroz, M. (2013). *Kształtowanie elastyczności przedsiębiorstw internetowych*. Wyd. UE we Wrocławiu.
- Nagaraj, V., Berente, N., Lyytinen, K., & Gaskin, J. (2020). Team design thinking, product innovativeness, and the moderating role of problem unfamiliarity. *Journal of Product Innovation Management*, 37(4), 297–323. <https://doi.org/10.1111/jpim.12528>
- Narver, J.C., & Slater, S.F. (1990). The effect of a market orientation on business profitability. *The Journal of Marketing*, 54(1), 20–35.
- Osbert-Pociecha, G. (2004). Dualna natura elastyczności organizacji i jej implikacje praktyczne. *Przegląd Organizacji*, 9, 9–12.
- Osbert-Pociecha, G., Moroz, M., & Lichtarski, J. (2008). Elastyczność przedsiębiorstwa jako konfiguracja elastyczności cząstkowych. *Gospodarka Narodowa*, 4, 59–84.
- Pakulska, T. (2020). *Elastyczność w biznesie. Skuteczna adaptacja*. Oficyna Wydawnicza SGH.
- Peng, X.B., Liu, Y.L., & Lin, Y. (2015). The impact of environment uncertainty and effectual flexibility on entrepreneurial resource combination: The moderating effect of entrepreneurial self-efficacy. *Frontiers of Business Research in China*, 9(4), 559–575. <https://doi.org/10.3868/s070-004-015-0022-9>
- Sharma, M.K., Sushil, & Jain, P.K. (2010). Revisiting flexibility in organizations: Exploring its impact on performance. *Global Journal of Flexible Systems Management*, 11(3), 51–68. <https://doi.org/10.1007/BF03396587>
- Sheng, S., Zhou, K.Z., & Li, J.J. (2011). The effects of business and political ties on firm performance: Evidence from China. *Journal of Marketing*, 75(1), 1–15. <https://doi.org/10.1509/jm.75>
- Taber, K.S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48, 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>
- Teece, D.J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
- van der Weerdt, N.P. (2009). *Organizational flexibility for hypercompetitive markets. Empirical evidence of the composition and context specificity of dynamic capabilities and organization design parameters*.



- ERIM Ph.D. Series Research in Management, Erasmus Research Institute of Management. <http://hdl.handle.net/1765/16182>
- Verdú, A.J., & Gómez-Gras, J.-M. (2009). Measuring the organizational responsiveness through managerial flexibility. *Journal of Organizational Change Management*, 22(6), 668–690. <https://doi.org/10.1108/09534810910997069>
- Weaven, S., Quach, S., Thaichon, P., Frazer, L., Billot, K., & Grace, D. (2021). Surviving an economic downturn: Dynamic capabilities of SMEs. *Journal of Business Research*, 128, 109–123. <https://doi.org/10.1016/j.jbusres.2021.02.009>
- Wilcox, R.R. (1992). Robust generalizations of classical test reliability and Cronbach's alpha. *British Journal of Mathematical and Statistical Psychology*, 45, 239–254.
- Wysocki, F., & Lira, J. (2005). *Statystyka opisowa*. Wyd. Akademii Rolniczej im. A. Cieszkowskiego w Poznaniu.
- Yeniaras, V., Di Benedetto, A. & Dayan, M. (2021). Effects of relational ties paradox on financial and non-financial consequences of servitization: Roles of organizational flexibility and improvisation. *Industrial Marketing Management*, 99, 54–68. <https://doi.org/10.1016/j.indmarman.2021.09.006>
- Yu, K., Cadeaux, J., & Luo, B.N. (2015). Operational flexibility: Review and meta-analysis. *International Journal of Production Economics*, 169(C), 190–202. <https://doi.org/10.1016/j.ijpe.2015.07.035>
- Zhao, Y., & Wang, X. (2020). Organisational unlearning, relearning and strategic flexibility: From the perspective of updating routines and knowledge. *Technology Analysis & Strategic Management*, 32(2), 1251–1263. <https://doi.org/10.1080/09537325.2020.1758656>
- Zhou, K.S., & Wu, F. (2010). Technological capability, strategic flexibility, and product innovation. *Strategic Management Journal*, 31(5), 547–561. <https://doi.org/10.1002/smj.830>