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### **RESILIENCE OF SMALL AND MEDIUM-SIZED ENTERPRISES IN THE GERMAN-POLISH BORDER REGION UNDER CHANGING ECONOMIC CONDITIONS**

**Abstract:**

*SME resilience, interpreted as the resistant, flexibility and strategic revitalisation capacity of an organisation, takes on particular importance under conditions of extraordinary threats (e.g. COVID 19 pandemic, war in Ukraine). The important role of SMEs in the economies of many countries makes the resilience of companies in this sector, in times of crisis, crucial for the private sector, national economies and the global economy. The aim of this research is to identify the resilience factors of SMEs in changing economic conditions. The research hypothesis is formulated as follows: the resilience factors of SMEs are time-varying and require constant monitoring to maintain enterprise resilience. The verification of the hypothesis and the realisation of the objective will be carried out through theoretical and empirical studies of SMEs in Poland (West Pomeranian Voivodeship) and Germany (Mecklenburg-Vorpommern and Brandenburg). The analysis of the resilience of SMEs in economically and socially highly interconnected areas located in different countries is unprecedented in the literature, which demonstrates the innovation of the research conducted.*

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## 1. Introduction

The frequency and severity of emergency threats is most likely to increase in the 21st century (WEF, 2013). Two previous major disease outbreaks, SARS and MERS, have been overtaken by a new coronavirus, COVID-19, which has evolved into a global pandemic. Business communities around the world have been affected by prolonged measures to prevent the spread of the coronavirus. Additionally, the war in Ukraine is becoming more and more important for the whole world. In the current situation - of extraordinary threats, small and medium-sized enterprises are most at risk of collapse in the business community. This is due to scarce resources and limited capacity to cope with external shocks (Asgary et al., 2020; OECD, 2020). The widespread failure of SMEs can generate unemployment, disrupt large, dependent firms and have a negative impact on the economies of countries on every continent. The important role of SMEs in the economies of many countries (contribution to GDP, value added, employment) makes the resilience of companies in this sector, in times of crisis, crucial for the private sector, national economies and the global economy (Asgary et al., 2020). Hence, the purpose of this research is to identify the resilience factors of small and medium-sized enterprises in changing economic conditions. The research hypothesis was formulated as follows: the resilience factors of SMEs are time-varying and require constant monitoring in order to maintain the resilience of enterprises. The verification of the hypothesis and the realisation of the objective will be carried out through theoretical and empirical studies of SMEs in Poland (West Pomeranian Voivodeship) and Germany (Mecklenburg-Vorpommern and Brandenburg). There is no consideration in the literature of strongly economically and socially linked areas located in different countries. The links are being strengthened by, among others, the Interreg VI A Programme Mecklenburg-Vorpommern/ Brandenburg/ Poland 2021-2027, which aims to strengthen functional links in the cross-border metropolitan region of Szczecin, coordinate cross-border planning and spatial development even more closely, provide and use public services jointly and overcome existing barriers, and increase the attractiveness of the border area for employees, businesses and capital. Thus, the resilience of businesses in the German-Polish border area may be a phenomenon that requires a joint, similar response to changing economic conditions.

## 2. Background

### 2.1. *The concept of resilience and the SME sector*

To date, there is no uniform definition of resilience in management and economics (Williams, Vorley, 2017). However, attention is drawn to the need to organise research in this area in a systematic way, especially referring to the SME area (Tognazzo, Gubitta, Favaron, 2016, pp. 768-790, , 2016; Williams, Vorley, Ketikidis , 2013, pp. 399-415). The resilience, crucial to the economies of many countries, of the SME sector is the subject of a dynamic academic and policy debate (Linnenluecke, 2017, pp. 4-30; Williams, Vorley, 2017). However, research in this area is very challenging, due, among other things, to differences in defining and measuring SME resilience (Dahlberg and Guay, 2015, pp. 975-984.; Tognazzo, Gubitta, Favaron, 2016). The first attempt to define the resilience of an organisation was made by C.S. Holling in 1973 (Holling, 1973, pp. 1-23). He referred to resilience as the ability of an organisation to return to a state of equilibrium (Engineering Resilience) and the volume of disruption that a system can absorb before destruction (Ecological Resilience). In contrast, Ch. Perrings in 2006 referred to resilience in terms of sustainability. According to him, 'resilience' is the ability of a system to cope with disturbances without losing its functionality. It is the ability to withstand market or environmental shocks without losing the ability to allocate resources efficiently (functionality of the market and supporting institutions) or to provide essential basic services (functionality of the production system) (Perrings, 2006, p. 417-427). With regard to regional, local policies, on the other hand, P. Regibeau and K. Rockett define resilience as the ability of an economy, society, organisation or individual to successfully recover from an unexpected shock (Regibeau, Rockett, 2013, p. 107-147). World Bank experts, on the other hand, accept that resilience is the ability of an economy or society to minimise losses in living standards, in the event of extraordinary risks (Hallegatte, 2014, p. 2-3).

In relation to SMEs, one can distinguish definitions interpreting resilience as:

1. Adaptability, maintenance of positive performance (growth), responsiveness, competitiveness and the firm's ability to minimise vulnerabilities, as well as their rapid recovery from a disruptive state (Ates and Bititci, 2011, pp. 5601-5618; Biggs D., Hicks C. C., Cinner J. E., Hall C. M., 2015, pp. 65-74; Gunasekaran, Rai, and Griffin 2011, pp. 5489-5509).
2. The ability to identify, recognise and seize business opportunities (Hamel, Valikangas, 2003, pp.52-65; Manfield and Newey, 2017, pp.1155- 1180),

3. Combining a 'portfolio of opportunities'; maintaining or even increasing company performance in the face of disruption (Markman, Venzin, 2014, pp.1096-1107).

Taking into account the sources of the concept of resilience and the interpretations to date, it is proposed (and this definition will be adopted in this article), to interpret resilience as the resilience, flexibility and capacity for strategic revitalisation (regeneration) of an organisation under conditions of extraordinary threats.

Resilience is a multifaceted and multidisciplinary concept. It can be analysed at different scales. The World Bank distinguishes between the concepts of macroeconomic resilience and microeconomic resilience (Hallegatte, 2014, p. 3). In this article, the focus is mainly on microeconomic resilience relating to enterprises.

The most essential component of resilience is resistance, which T. Bishop and F. Hydoski defined as 'the ability of a company to return to its pre-stressor state'(Bishop, Hydoski, 2010, p. 23). Organisational resilience can be provided by four interacting elements:

1. Risk assessment – identify, categorise and estimate risk factors and indicate what strategy should be used to mitigate them.
2. Risk prevention – appropriate prevention strategies need to be implemented to anticipate and counteract specific risks.
3. Detection of anomalies in accordance with pre-approved risk areas – e.g. through periodic audits, continuous monitoring.
4. Responding to irregularities – scenarios should be prepared for dealing with irregularities in order to minimise their negative impact on the company.

The second component of the resilience concept is flexibility. An extensive interpretative analysis of proposals by various authors was presented by R. Krupski (Krupski, 2008, pp. 15-17). Looking for the resultant of various concepts, it can be assumed that flexibility is the ability of an organisation to adapt to conditions in its environment. The term adaptation has been used in this case intentionally, as a synonym for adjustment, due to the widespread use in English literature of the term adaptiveness to describe the phenomenon in question (Gibson, Ivancevich, Donnelly, 1998, p. 38; Strategor, 1996, p. 277). Adaptation can be external- consisting of an organisation's ability to influence its environment – or internal – amounting to adaptive change within the organisation. Flexibility may concern various areas related to the functioning of the organisation: the use of machinery, labour, material flows, product offer, operations, development, size of operations, assortment portfolio, introduction of new (modifying)

products (Ziębicki, 2010, p. 387-388). Flexibility is also often considered in the system of organisational subsystems: financial, information, manufacturing, market and strategic management (Krupski, 2008, p. 22).

The third element that contributes to the concept of resilience is the strategic revitalisation of the company. The process of revitalisation is equated with strategic change (Floyd, Lane, 2000, p. 155). B. Nogalski and H. Marcinkiewicz interpret the strategic revitalisation process as a change in the company's focus, which requires a new look at human resource management and the company's organisation (renewing) (Nogalski, Marcinkiewicz, 2004, p. 49). This means that the renewing process is implemented in two cases: the formation of a strategic gap and the anticipation of the formation of a strategic gap between the competences of the organisation and the requirements of the environment. An efficient strategic revitalisation of an enterprise should potentially bring it not only an improvement in efficiency, but also an improvement in its competitive position in the market, the establishment of better relations with customers, changes in the organisational structure favouring its flexibility of response, an increase in the scope of delegation of authority, the adaptation of activities (processes) to the requirements of customers, the development of new skills and key competences, the optimisation of the value chain, etc. (Walas-Trębacz, 2008, p. 97). There is therefore a close relationship between an organisation's resilience, its flexibility and its capacity for strategic revitalisation. All these elements contribute to the concept of resilience.

## **2.2. Business cycle theories**

When the predominant economy was mainly based on agriculture and barter, economic downturns were largely due to natural disasters. With industrialisation and the development of the market, cycles in the economy came to be associated with human economic activity rather than natural phenomena. Wesley Clair Mitchell believed that business cycles appeared in Great Britain in 1790, in the USA in 1796, in France in 1847 and in Germany in 1857. After 1890, business cycles occurred in almost all economies of the world, not excluding communist economies (Mitchell, 1951, pp. 187-198).

In the development of economies, researchers have distinguished cycles of different frequencies:

1. Nikolai Kondratieff, distinguished long cycles (lasting about 50 years). The reason for their occurrence is the fact that infrastructure wears out and is renewed under the influence of technical progress, with the result that the development process took place in waves (Kondratieff, Stolper, 1935, pp. 105-115).

2. Simon Kuznetz, distinguished phrases, fluctuations (he did not call them cycles) that are mid-term (they last from 15 to 23 years). They are associated with demographic processes, waves of migrant inflows and, consequently, construction activity, i.e. investment in infrastructure (Kuznetz, 1930, p. 558).
3. Clement Juglar distinguished the so-called classic cycles (they range from 6 to 10 years). They are caused by fluctuations in fixed capital investment. This is related to the activities of banks and the excessive propensity to lend during economic expansion (Juglar, 1856, pp. 555-581).
4. Joseph Kitchin, distinguished the so-called short cycles (ranging from 3 to 4 years). They are caused by changes in working capital (inventory changes). They result in delays in the flow of information, which affects business decisions. These delays resulted in a mismatch between the volume of production and current demand, an excessive increase in inventories and, as a result, a fall in commodity prices and restrictions on production ( Kitchin, 1923, pp. 10-16).

The division of cycles presented above, in terms of their duration, concerns the entire economy. In addition to mentioned, there are cycles associated with individual markets, industries and also cycles associated with changes in human activity during the year. Seasonal fluctuations, however, are often eliminated in business cycle analysis in order to expose the cyclical factor.

The economy-wide fluctuations mentioned so far are largely of historical interest, although contemporary work relating to them, mainly Kondratieff cycles, can be found. Modern approaches to business cycles stem from the development of the theory by Wesley C. Mitchell, Arthur F. Burns and other economists (Table 1).

**Table 1. Contemporary view of business cycles**

Author(s)	Interpretation of the business cycle	Cycle phases	Comments
Wesley C. Mitchell Arthur F. Burns	Some fluctuations in the overall activity of the economy as a whole	<ol style="list-style-type: none"> <li>1. Expansion – occurs more or less at the same time in different areas of business.</li> <li>2. Recession – a period of economic contraction.</li> <li>3. Reconstruction - leading to development.</li> </ol>	There are two distinctive points in the fluctuations – an upper turning point (peak) and a lower turning point (bottom)
Joseph Alois Schumpeter	The phases of the business cycle are related to equilibrium	<ol style="list-style-type: none"> <li>1. The growth phase – is above economic equilibrium.</li> <li>2. Recession phase – is above economic equilibrium.</li> <li>3. Depression phase- are below economic equilibrium.</li> <li>4. Recovery phase – is below economic equilibrium.</li> </ol>	Misjudgements by market participants about the size of demand and supply lead to overheating of the economy
John R. Meyer Daniel H. Weinberg	The phases of the business cycle are closely linked to inflation	<ol style="list-style-type: none"> <li>1. Recession – a period of decline in overall economic activity, affecting various areas of economic life, which lasts at least 1 year.</li> <li>2. Renaissance – a period of recovery in economic activity, characterised by relatively stable prices, increasing production and productivity.</li> <li>3. A state of demand inflation – a period of continued economic expansion, but accompanied by a constraint on access to resources, which causes prices to rise and productivity to fall.</li> <li>4. Stagflation - a period in which growth slows down but inflation remains relatively high.</li> </ol>	There is an assumption of pro – cyclical inflation, which counts as an empirical fact

Continued Table 1

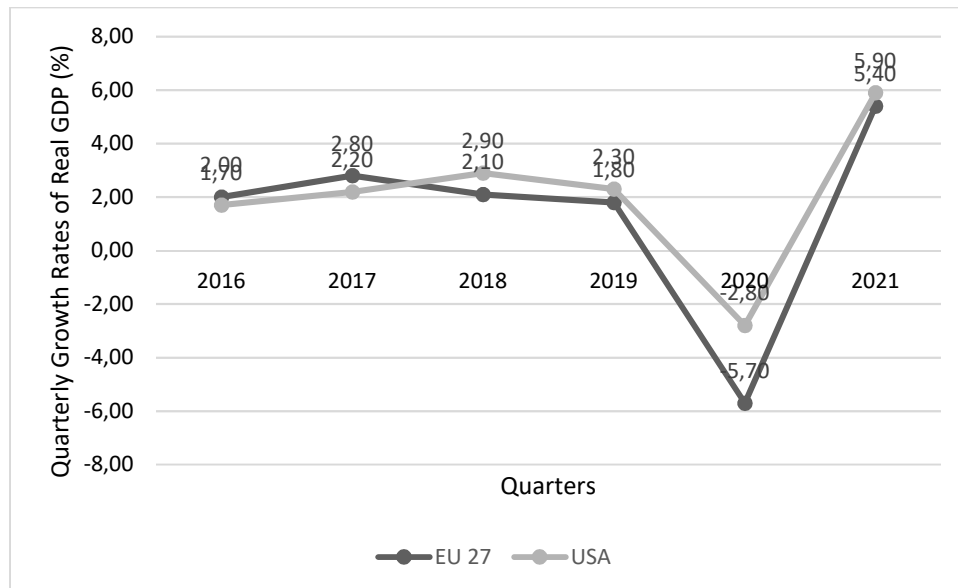
Ilse Mintz	Growth cycles can be defined as changes in the growth rates of variables describing the activity of the economy	1. Phase of accelerated growth above trend. 2. Slow growth phase - below trend to date.	Cycles last from six months to about twoyears
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Source: own elaboration based on: A.F. Burns, W.C. Mitchell, *Measuring Business Cycles*, NBER, New York 1946; J.A. Schumpeter, *Business Cycle*, McGraw-Hill, New York 1939; J.R. Meyer, D.H. Weinberg, *On the Classification of the Recent Cyclical Experience*, NBER INC. 55<sup>th</sup> Annual Report, September 1975, pp. 1-8; I. Mintz, *Dating Postwar Business Cycles: Methods and Their Application to Western Germany, 1950-1967*, NBER, New York 1969.

Growth cycles occurring in highly developed economies after the Second World War have drawn the attention of researchers to slowdowns in the growth phase of the economy. A new approach to looking at fluctuations in economic activity, based on the German economy, was presented by Ilse Mintz. The concept of growth cycles, of which she was the author, assumed that cycles as interpreted by Burns and Michell, do not occur. However, cycles do appear, initially called deviation cycles, understood as deviations from the long-term development trend.

The cyclical nature of economic development tends to spread across the world's economies. There is a certain synchronisation of them called the 'contagion effect'. This is due, among other things, to increasing globalisation, the increased openness of economies, the spread of technological progress and, often, the common policies of governments and central banks. An example of the synchronisation of growth cycles for the US and the EU-27 is shown in Figure 1.



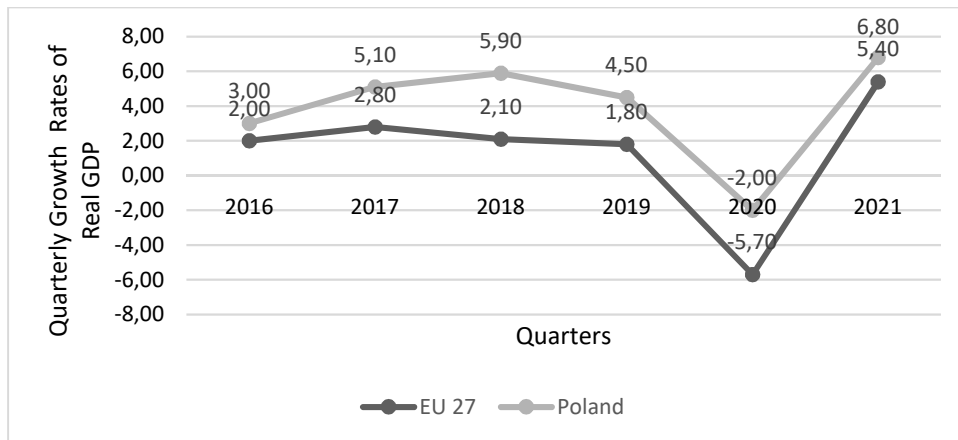


**Figure 1. Synchronisation of US and EU-27 growth cycles 2016-2021 (annual data)**

Source: OECD, *National Accounts Statistics: Annual national accounts*, <https://stats.oecd.org/?lang=fr&SubSessionId=1da0a12e-fb1f-40b5-bc65-45bf9ef767aa&themetreeid=-200>, 27.02.2023.

Figure 1 shows an index of real GDP growth rates with a base year of 2015=100 for the US and EU27 economies. Analysis of the figure allows one to see the synchronisation of economic growth rates as expressed by changes in real GDP. In many situations, one can see a slightly delayed reaction of the EU27 in relation to the activity of the US economy, which may suggest the direction of the spread of changes and the contagion effect. Shown in Figure 1, changes in the activity of the European economies and the US economy correspond to classical cycles. This is because the changes in real GDP with a common base (in this case 2015=100) correspond to real GDP data.

A similar synchronisation of growth cycles can be observed for the EU-27 economies and the Polish economy (Figure 2).

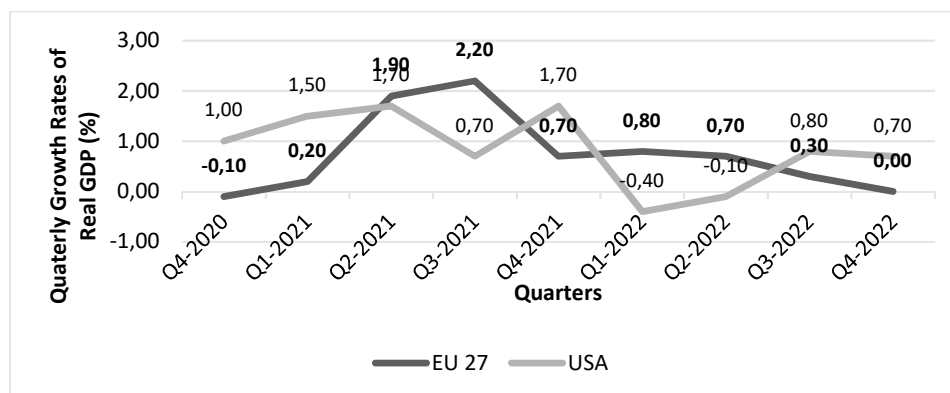


**Figure 2. Synchronisation of the EU-27 and Polish growth cycles 2016-2021 (annual data)**

Source: OECD, *National Accounts Statistics: Annual national accounts*, <https://stats.oecd.org/?lang=fr&SubSessionId=1da0a12e-fb1f-40b5-bc65-45bf9ef767aa&themetreeid=-200>, 27.02.2023.

Figure 2 clearly shows the synchronisation of economic development and its cyclicity in the EU27 and Poland, with a slightly delayed reaction of the Polish economy compared to the EU27 economy in many cases.

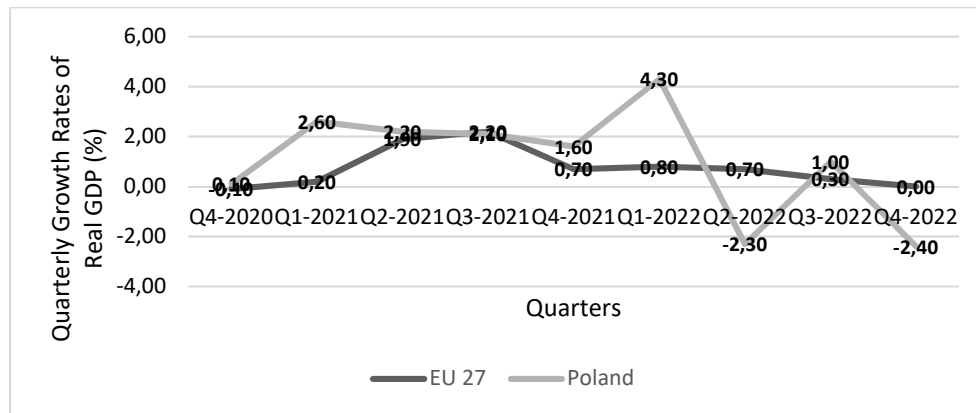
Synchronisation occurs to a much lesser extent in times of extraordinary threats (Covid 19 pandemic, outbreak of war in Ukraine). This is indicated by the degree of synchronisation of cycles for the EU27 and the US. Due to a change in national accounts methodology at the OECD, data from 2020 onwards are presented in separate graphs (Figure 3 and Figure 4).



**Figure 3. Synchronizacja cykli wzrostowych USA i UE-27 w latach 2020-2022 (dane kwartalne)**

Źródło: opracowanie własne na podstawie: *OECD National Accounts Statistics: Quarterly National Accounts*, <https://stats.oecd.org/Index.aspx?DataSetCode=QNA>, 27.02.2023.

Less synchronisation, in times of extraordinary risks, also occurs between the Polish economy and the EU countries (especially in 2022). However, it can be assumed that the rather strong trade links between Poland and the other EU countries have to some extent prevented a deeper desynchronisation of fluctuations. Factors that increase the risk of desynchronisation of fluctuations, on the other hand, are the challenges in the form of large inflation differentials among EU countries, the impact of the war on EU economies and the 'side costs' of sanctions imposed on Russia due to its varying degree of dependence on raw materials (asymmetric shocks).



**Figure 4. Synchronisation of EU-27 and Polish growth cycles 2020-2022 (quarterly data)**

Source: own compilation based on: *OECD National Accounts Statistics: Quarterly National Accounts*, <https://stats.oecd.org/Index.aspx?DataSetCode=QNA>, 27.02.2023.

In summary, based on the data presented, it can be concluded that Poland is characterised by a "moderate" degree of real convergence. This prompts the application of the classical business cycle in the following analysis.

## 2. Research method

The original empirical research was undertaken in October 2022, with a focus on the resilience of SMEs in the German-Polish border area under changing economic conditions. The research hypothesis was formulated as follows: the resilience factors of SMEs are variable over time and require constant monitoring in order to maintain the resilience of enterprises. The verification of the hypothesis was subordinated to the objective of identifying the resilience factors of SMEs in changing economic conditions.

The survey covered small and medium-sized enterprises based in Poland and Germany. The research was conducted in the West Pomeranian Voivodeship and in Mecklenburg- Vorpommern and Brandenburg.

The subject of the study is small and medium-sized enterprises. Business practices indicate that a SME is not a scaled-down version of a large enterprise [Chawla et al., 1997, pp. 47-58].

The research was conducted on the basis of a survey questionnaire, which provided the opportunity to carry out the research in a relatively short period of time. In order to prevent possible artefacts that may occur in survey research based on a survey questionnaire, important measures were taken:

1. The design of the survey questionnaire was based on a 'brainstorming' exercise to which academics (those with at least a PhD) and those with managerial functions in small and medium-sized enterprises were invited to participate.
2. Based on the designed survey form, a survey was conducted in April 2022. Based on these surveys, incomprehensible and ambiguous questions were eliminated.
3. The resilience research was multi-faceted. In addition to internal factors including resilience, flexibility and the ability to strategically revitalise, the environment of changing economic conditions was also taken into account.

In effect, respondents were presented with a form consisting of 16 closed and semi-open questions, four of which were metrics. The survey was anonymous.

In addition to the metric, the form has two other sections shaping the resilience of small and medium-sized enterprises under changing conditions:

1. The impact of cyclical conditions on the resilience of small and medium sized enterprises.
2. Measures taken by small and medium-sized enterprises to maintain resilience in volatile economic conditions.

A total of 276 small and medium-sized enterprises from the West Pomeranian Voivodeship, Mecklenburg-Vorpommern and Brandenburg completed the survey form online and on paper. A similar percentage of companies from Poland and Germany took part in the survey (Table 2).

**Table 2. Structure of enterprises by provinces**

Territorial units	Relative share of enterprises in the studied sample (%)
West Pomeranian Voivodeship	51,45
The Land of Mecklenburg Western Pomerania	26,45
The Land of Brandenburg	22,10

Source: own study based on conducted research.

In all administrative units, enterprises were mostly run by individuals as sole proprietorships (55.07% of enterprises surveyed), but there were also limited liability companies (18.48%) and civil partnerships (17.39%), as well as partnerships (9.06%) indicated by respondents themselves. The choice of business form was largely dictated by the size of the enterprise. This

is because the surveyed population was dominated by micro-enterprises, which accounted for 75% of the surveyed entities. Small enterprises accounted for 15.58% and medium-sized enterprises for 9.42%.

The sample was dominated by businesses in operation for more than 15 years, accounting for almost 34% of the population. More than 31% were businesses in existence for 10 to 15 years. More than 21% were enterprises in existence for 5 to 10 years and almost 14% were enterprises in existence for less than 5 years. The high share of long-established enterprises (more than 10 years) in the surveyed sample allows us to assume that the research was carried out among people who are well acquainted with the SME sector and the specifics of its operations, which significantly increases the quality of the research. The predominant share of long-established enterprises in the survey indicates that it is possible for small and medium-sized enterprises to remain competitive. Inviting experienced entrepreneurs to the survey will indicate ways of maintaining this competitiveness, which makes the survey legitimate and confirms the correct structure of the target group.

### 3. Research findings

In the first stage of the research, entrepreneurs assessed the impact of cyclical conditions on the resilience of small and medium-sized enterprises. First, entrepreneurs were asked whether they expected changes in the business cycle caused by external shocks (e.g. the Covid 19 pandemic or the war in Ukraine). Almost 80 per cent of respondents answered affirmatively, with the rest stating that they had at least partly expected an economic recession. Entrepreneurs then assessed the impact of the various elements on maintaining company resilience during the recession phase of the economic cycle.

Businesses were then asked to rate the strength of the impact (on a scale of -2 to +2) of each element on maintaining resilience during the recession phase of the business cycle. Table 4 details the responses obtained.

**Table 4. Influence of individual elements on maintaining resilience during the recession phase of the business cycle**

Power of influence Elements of resilience	-2	-1	0	1	2	Total number of responses
Organisational resistance	0	0	0	78	198	276
Flexibility of the organisation	0	0	22	120	134	276
Strategic revitalisation capacity	0	0	78	114	84	276

Source: own study based on conducted research.

Of the listed elements of corporate resilience, the most important for entrepreneurs is the organisation's resistance (almost 72% of respondents rated it as 2 and the rest as 1). Slightly less important is the organisation's flexibility (almost 49% rated it 2, over 43% rated it 1 and the rest felt it had no impact) and least important is the capacity for strategic revitalisation (over 28% felt it had no impact on enterprise resilience). This may be due to the selection of entities surveyed. In small enterprises (such is the majority in the sample), strategy generally does not take the form of a formal document. It usually exists in the heads of the owners. At the same time, it is worth adding that strategic resilience was more important for entrepreneurs from Poland than from Germany.

The next three questions were concerned with determining the significance of the impact of individual components on a company's resilience. Entrepreneurs were asked, among other things, which of the components of resistance is most important in the company. Here, the individual elements were ranked as follows (dominance was used):

1. Risk assessment. Under this term, entrepreneurs mainly understood the identification of risk factors and the development of strategies to mitigate them.
2. Responsiveness to irregularities. This characteristic was often linked to the elasticity of the company and a rapid response. The need to prepare scenarios for dealing with irregularities was also recognised.
3. Preventing risks. Entrepreneurs mainly had in mind anticipating and counteracting risks.
4. Detection of irregularities. Only a minority of entrepreneurs see the need for auditing and monitoring (about 12% in the West Pomeranian Voivodeship, about 11% in the Land of Mecklenburg-West Pomerania and 9% in the Land of Brandenburg).

Entrepreneurs were then asked to rate the importance of the different elements of flexibility in the recession phase by giving them ranks. For this purpose, entrepreneurs ranked the given factors from most important to least important. Table 5 shows the dominance for the determinants.

**Table 5. Assessment of the relevance of individual flexibility elements (dominant)**

No.		Territorial units			
		West Pomeranian Voivodeship	The Land of Mecklenburg-Western Pomerania	The Land of Brandenburg	Total
1.	Internal flexibility - financial	1	1	2	1
2.	Internal flexibility - information	6	5	5	5
3.	Internal flexibility - manufacturing	5	6	6	6
4.	Internal flexibility - strategic management	3	4	3	3
5.	Internal-information-technological flexibility	2	2	1	2
6.	Internal flexibility - human resources management	4	3	4	4
7.	Internal flexibility - other (please specify)				
8.	External flexibility	7	7	7	7

Source: own study based on conducted research

The entrepreneurs surveyed considered internal financial and IT-technological flexibility to be the most important. External flexibility is the least important. Thus, they assume that a company's resilience largely depends on internal factors, which they can directly influence and predict. The answers to the question on strategic resilience are also interesting. Although it is the least appreciated element of resilience, they recognise its positive effects, which include (given by number of indications):

- a) improving efficiency,
- b) improving its competitive position in the market,
- c) establishing better customer relations,
- d) changes to the organisational structure to favour its flexibility of response,
- e) increasing the scope for delegation,
- f) adapting activities (processes) to customer requirements,
- g) the development of new skills and key competences,
- h) optimising the value chain, etc.



When asked about taking advantage of opportunities arising in the environment, as many as 85% answered in the negative (most from West Pomeranian Voivodeship). They argued that the company was not prepared for external shocks and focused on minimising the effects of the risks. On the other hand, when asked about avoiding risks, 79% of the entrepreneurs (most from The Land of Brandenburg) confirmed that they had managed to do so. They argue this, among other things, with extensive experience, good knowledge of the market in which they operate and a committed workforce

The second stage of the research analysed the actions taken by small and medium-sized enterprises to maintain resilience in changing economic conditions. All enterprises declared that they had taken such measures. These were mainly measures aimed at maintaining the company's resistance (Table 6).

**Table 6. Actions taken by entrepreneurs to maintain company resilience**

No.	Activities	Territorial units		
		West Pomeranian Voivodeship	The Land of Mecklenburg-Western Pomerania	The Land of Brandenburg
1.	Organisational resistance	62,68	69,86	77,05
2.	Flexibility of the organisation	33,10	24,66	18,03
3.	Strategic revitalisation capacity	4,22	5,46	4,92

Source: own study based on conducted research.

For entrepreneurs in each of the areas surveyed, the most important activities were in the area of company resistance (highest indication 77.05% in The Land of Brandenburg). Far less active was the area of organisational flexibility (highest indication 33.10% in the West Pomeranian Voivodeship). The least action was taken in the area of strategic revitalisation (highest indication 5.46% in The Land of Mecklenburg Western Pomerania). At the same time, entrepreneurs mostly (75.4%) declare that they will take further measures to support the resilience of the company. These will be mainly (62.7% of respondents) directed at building the organisation's

internal resilience (resistance, flexibility, strategic revitalisation capacity), and to a lesser extent at building external resilience (37.3%).

The summary of this part of the research are the views on the resilience of the company made by the management level. The assessment concerned the period before the pandemic and the war in Ukraine, during the war in Ukraine (2022) and the forecast for 2024. In the period before the war, for all areas (internal-resilience - resistance, elasticity, strategic revitalisation and external resilience), every second respondent (median) considered their company to be more resilient than others. Entrepreneurs from Brandenburg rated themselves best in relation to their competitors, and those from the West Pomeranian Voivodeship rated themselves weakest. For internal resilience, the majority of respondents (57%) rated themselves at a similar level to the competition. For external resilience, they rated themselves mostly (62%) worse than the competition. The rest at a level similar to the competition. The responses regarding the forecast for 2024 are also interesting. There is an optimistic attitude among entrepreneurs. Respondents believe that this will happen after the war in Ukraine. According to entrepreneurs, their resilience in all areas will again be higher than the competition. It is noteworthy that a more optimistic attitude is evident for entrepreneurs from Germany than from Poland. Perhaps this is due to the geographical location and positioning in relation to Ukraine.

#### **4. Discussion of findings. Conclusion**

Extensive empirical research, supported by extensive theoretical studies, has led to the identification of resilience factors of small and medium-sized enterprises in Poland and Germany under changing economic conditions.

Resilience is the ability of a business to survive and thrive in the face of change and difficulties. Some of the factors that influence the resilience of small and medium-sized enterprises are:

1. Flexibility and innovation - SMEs that are able to adapt to changing conditions and innovate quickly are more likely to survive.
2. Sustainability – Companies that balance economic, social and environmental development are more resilient to crises.
3. Creativity and entrepreneurship – Businesses that are able to use their creativity and entrepreneurship to grow and expand are more flexible and resilient to change.
4. Good communication – SMEs that have open and effective internal and external communication are better able to deal with challenges and make decisions faster.
5. Human resources – Companies that have well-qualified and committed employees and manage their team well are more flexible and able to adapt to change more quickly.

6. Diversified sources of income – Companies that have diverse sources of income, such as different business lines or markets, are more resilient to crises in one industry.
7. Good strategy and planning – SMEs that have a well-developed strategy and long-term planning are better able to anticipate and cope with difficulties.
8. Financial resources – Companies that have the ability to raise finance and manage their financial resources effectively are more resilient to change and difficulties.
9. Networking and partnerships – Businesses that have a well-developed network of contacts and partnerships are better able to cope with challenges and adapt more quickly to a changing environment.
10. Good reputation and trust – SMEs that have a good reputation and build trust among their customers, employees and partners are more resilient to difficulties and better able to cope with crisis situations.

The determinants presented are certainly not a closed set, and the changing economic reality calls for further, in-depth research into SME resilience.

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