
Competitiveness of Small and Medium-Sized Enterprises in the German-Polish Border Area in Times of Extraordinary Threats

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Abstract:

Purpose: The aim of the article is to develop a concept for the competitiveness of small and medium-sized enterprises in the German-Polish border area in times of extraordinary threats.

Design/methodology/approach: The verification of the hypothesis and the realisation of the objective was carried out through theoretical and empirical research of small and medium-sized enterprises registered in the Polish-German border area (West Pomeranian Voivodeship and Mecklenburg-Vorpommern and Brandenburg).

Findings: The economic, social, political and climatic changes brought about by the 21st century bring many opportunities on the one hand, but on the other hand they are associated with certain threats. A significant part of them can be predicted and at least partially prepared for them. To make this possible, a new approach to the competitiveness of enterprises is needed, which is presented in the article.

Practical implications: The article proposes a new model of competitiveness. Using it by SMEs will enable them to remain competitive in times of extraordinary threats. This concept can also be applied to the meso-, macro- and mega-economy, especially since more threats are global in nature.

Originality/Value: Studies described in the literature point to similar strategies for maintaining the competitiveness of SMEs in times of extraordinary threats. However, the literature on the subject does not address the topic of strongly interconnected economic and social areas located in different countries. In addition, current publications focus mainly on the effects of the Covid 19 pandemic, without taking into account the ongoing war in Ukraine. This article fills this gap.

Keywords: Competitiveness, small and medium-sized enterprises, extraordinary threats.

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Paper type: Research article.

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1. Introduction

In a situation of unlimited needs and limited resources, competition stimulates socio-economic progress, innovation and rational management. Competitiveness is a category appreciated by economic theorists and practitioners. At the microeconomic scale, competitiveness is mainly referred to enterprises, which need to have an adequate competitive position in order to succeed on the market. Obtaining such a position is possible by possessing advantages valued by the market.

These advantages are shared along a value chain consisting of the core functions of the enterprise, and the acquisition of a competitive advantage is dependent on the performance of the individual links in the chain. Achieving dominance in terms of at least one of the links in the chain analysed, enables the enterprise to achieve a decisive advantage, which in turn depends on endogenous and exogenous factors. Examples include the extraordinary events initiated in China in 2019/2020 and the war in Ukraine initiated in 2022. The multiplicity of extraordinary threats clearly indicates the importance of external competitiveness factors.

The aim of this article is to develop a concept of the competitiveness of small and medium-sized enterprises in the German-Polish border area in times of extraordinary threats. The research hypothesis is formulated as follows: the competitiveness factors of small and medium-sized enterprises are variable over time and require constant monitoring in order to maintain the competitiveness of enterprises in the Polish-German border region.

The verification of the hypothesis and the realisation of the objective will be carried out through theoretical and empirical studies of small and medium-sized enterprises in Poland and Germany. The choice of research subjects was based on the important role of small and medium-sized enterprises in the Polish and German economies (share in GDP, added value, employment).

The relevant studies reported in the literature (Roggeveen, 2020; Qamruzzaman, 2020; Cowkertz, 2020; Chowdhury *et al.*, 2020; Sahoo, 2020; Sjödin, 2020; Cowling *et al.*, 2020), point to similar strategies for maintaining SME competitiveness in times of extraordinary threats.

However, they are not homogeneous. Differences arise from the nature of the business, the geographical location of the firm, the economic condition of the country, the environmental factors associated with the firm, the innovative and adaptive capacity of the entrepreneur in times of crisis, and so on. Research on SMEs considering extraordinary threats (mainly the COVID 19 pandemic) is mainly conducted in developed countries such as the USA, Europe, Australia, Canada, the UK, Italy (Schafi, 2020; Lalon, 2020) but has also been conducted in emerging economies such as Bangladesh and Pakistan (Hossain *et al.*, 2022).

However, there is no consideration in the literature of the subject of highly

interconnected economic and social areas located in different countries. In addition, current publications mainly focus on the effects of the Covid 19 pandemic, without taking into account the ongoing war in Ukraine. This gap is filled by the present article.

2. Literature Review

2.1 Competitiveness in Theoretical Terms

Competitiveness is a multidimensional category, which makes it difficult to define unambiguously. The situation is complicated by the fact that it is considered by researchers (using different concepts) on different scales (Bharadwaj *et al.*, 1993; Goldberg *et al.*, 2003). Additional conceptual ambiguity is introduced by the identification in the literature of competitiveness with an enterprise's health, efficiency, ability to improve and grow or competitive capability. Competitiveness can also be viewed as an independent variable, an intermediate variable or an entirely dependent variable, depending on the perspective of the research approach (Asree *et al.*, 2010).

The concept of competitiveness has not always been defined by well-known researchers of the subject. Porter (2001), Kay (2006) and Barney (1991) do not interpret it explicitly, but rather focus on its determinants or effects (competitive position, competitive advantage). However, attempts to define 'competitiveness' are not uncommon. Table 1 presents a selection of definitions of competitiveness, classifying them into five groups.

Table 1. Definitions of competitiveness- synthesis

Types of definitions	Definitions	Examples of authors of particular types of definitions
Functional	treating competitiveness as the possession of a particular type of skills, abilities, talents, qualities	EEC, OECD, St. Flejterski, M. Gorynia, W. Grzywacz, M. Majchrzak, A. Roman, J. Skalik, J. Stankiewicz, T.P. Tkaczyk
Process	interpreting competitiveness as a process	E. Cyrson
Resultant	relating to the effects, results, outcomes that the process produces	New York Stock Exchange, W. Bieńkowski, J.W. Bossak, C. Bowman, D. Faulkner, G.A. Hale
Positional	competitiveness is determined by the competitive position achieved	Strategor Group, J. Reiljan
Imitating	competitiveness is translated using another well-defined and well-known concept, as e.g. effectiveness, efficiency of operation	Z. Ring

Source: Own elaboration based on Majchrzak, 2012.

This review shows that the literature is dominated by activity-based definitions. Adhering to the views of most researchers and taking into account the subject scope of the research conducted, it would be appropriate to define competitiveness as the ability of small and medium-sized enterprises to present a more favourable offer than other participants in the supply side of the market.

The determinants of competitiveness have been identified in its modelling approaches. According to Porter, there are four basic groups of such competitiveness factors (Porter 2008, p. 207):

- factors of production,
- demand factors,
- strategy, structure and competition of companies,
- related and supporting sectors (clusters).

Porter points out that success in competition is also influenced by differences in national values, culture, economic structures, institutions, history and government policies. The latter should encourage companies to achieve ever higher levels of competitiveness. An attempt to internationalise Porter's model is that of Dunning (1992/1993, 7-15). This is because three important elements have been added to it:

- government policy,
- pro-competitive mentality,
- foreign direct investment.

Part of the government's impact on competitiveness is its influence on the investment climate and economic ethos i.e., a pro-competitive mentality (Dunning 1991). Cho and Moon (2000) classified the sources of competitiveness into two categories, "physical factors" and "human factors". They referred to the term 'physical factors' as production factors, the business environment, related and supporting sectors and domestic demand. Human factors include employees, politicians and officials, entrepreneurs, professional managers and engineers. With the human factor ultimately determining the achievement of better competitiveness.

The external factor is opportunities, often unexpected events taking place in the global environment. The nine-factor model distinguishes three basic groups of competitiveness factors (Cho and Moon 2000). Human factors, whose role is to combine and organise physical factors in order to achieve high international competitiveness. This group includes:

- employees, where it is possible to assess their numbers, level of pay, level of education, qualifications, discipline and work ethic, as well as their sense of belonging to and commitment to the organisation,
- politicians and officials, involving politicians and officials in a country's

development and success can help build international competitiveness. China, especially in the 1980s and 1990s, is an example of how a country can use leaders, and value economic development, even under a communist system. Effective and non-corrupt officials can help implement the country's policies for international competitiveness,

- entrepreneurs, of particular importance to the economy are innovative entrepreneurs, taking bold decisions often with high risks. They are particularly important for countries at an early stage of economic development. Over time, a country's competitiveness is strengthened by their efforts to reduce risks and maximise profits,
- professional managers and engineers, above all, it is the dedicated professionals who by making seemingly even minor improvements such as lowering production costs or reducing delivery times, can contribute to increasing the competitiveness not only of the country, but also of individual companies.

Physical factors - have a supporting role to human factors. These include:

- means of working, the authors particularly valued natural resources, both non-renewable and renewable, as well as environmental factors such as weather,
- the business environment, considered at macro, meso and micro levels. At the macro level, economic infrastructure (e.g., roads, ports, telecommunications) and societal acceptance of the values and processes associated with competitiveness (understanding of the principles and mechanisms of the market economy, involvement of producers, merchants, consumers and other market participants, meeting trade and credit obligations) are important. At the mesoeconomic level, the business environment is defined by the number and size of competitors, the type and height of barriers to entry, the degree of product differentiation, and other factors that shape the nature of competition and economic activity. At the enterprise level, the business environment is the strategies and organisational forms of enterprises and the attitudes and behaviour of individuals and groups within the enterprise,
- related and supporting sectors (clusters), related sectors refer to industries that share the same technology, raw materials, distribution network or marketing activities. Supporting sectors support the sector through, among other things, financial services, insurance, information services, and other services (largely business services),
- domestic demand includes both quantity and quality aspects, the size of the domestic market determines the minimum economies of scale for domestic companies, as well as guaranteeing the stability of demand. The domestic market is also a kind of test for products that can be shipped abroad, which significantly reduces risks in international trade. Major

benefits can also be gained in the qualitative dimension. Consumer expectations can stimulate competitiveness at home and abroad. Consumers with refined tastes and strict standards for product quality intensify the efforts of companies.

External factor - opportunities emerging in the global environment.

Unpredictable changes in the external environment can generate significant changes in a company. Examples include unexpected breakthroughs in new technologies or products, macroeconomic shocks (e.g., changes in oil prices, sharp fluctuations in global capital markets or exchange rates), changes in the policies of foreign governments, demands for international movements, outbreaks of war. The model of corporate competitiveness proposed by Cho and Moon (2000) appears to be incomplete and insufficient in times of extraordinary threats.

2.2 Extraordinary Threats

Some of the threats are foreseeable. Indeed, foreseeable threats are understood as "events or a confluence of events that take an individual or group by surprise, despite prior knowledge of the information needed to predict them and their consequences. Foreseeable threats occur regularly in all organisations, both private and public (...)". (Bazerman and Watkins, 2004, p. 15). Table 2 shows the characteristics of foreseeable risks.

Table 2. *Six characteristics of threats to be anticipated*

L.P.	Feature	Interpretation
1.	Leaders are aware of the problem and that the problem will not solve itself.	The problem is known, discussed. Despite leaders' awareness of the growing threat, there are no responses.
2.	Leaders know that as time goes by, the problem will increase.	In contrast to unavoidable threats, the problem lies not in the recognition of the threat, but in the lack of an appropriate response.
3.	Solving a pressing problem involves high costs at the present time, while the benefits of action taken are deferred.	Governments, organisations and people tend to downplay events that may occur in the future. Intuition advises against allocating resources to protect against a hypothetical threat.
4.	Meeting a foreseeable threat involves incurring costs, while the benefits achieved, although usually much greater, are by no means certain.	Those who decide to incur the costs are aware that they will receive relatively little public recognition. In contrast, the tangible costs resulting from the decisions of politicians never escape the attention of the electorate, unlike the disasters and misfortunes thus avoided.

5.	Decision-makers and organisations tend to maintain the status quo and thus the inability to prepare for the arrival of a foreseeable threat.	As long as a crisis does not arise that forces specific actions to be taken, specific issues are always sought to be dealt with as they have been up to now. Preventive action requires concrete decisions. Most organisations change gradually, preferring short-term half-measures to long-term sustainable solutions.
6.	Decision makers often face open opposition to changes that prevent threats from minority interest groups.	A minority that expresses opposition only aims at its own benefit and is able to sabotage actions needed for the general public.

Source: Own compilation based on: M.H. Bazerman, M.D. Watkins, Predictable Surprises: The Disasters You Should Have Seen Coming, and How to Prevent Them, Harvard Business School Press, Cambridge 2004, p. 15.

When the characteristics of foreseeable threats are juxtaposed with specific risks, it can be concluded that most of the known threats were foreseeable. In the current situation, the question can be asked: was the coronavirus pandemic (2019-...) foreseeable? Analysing the occurrence of epidemics and pandemics in the 20th and 21st centuries, one can formulate an affirmative answer.

Epidemics are recurring and with increasing frequency. It is possible to doubt which epidemic will occur, whether it will take on the dimensions of a pandemic and when exactly the next one will occur, but at the same time it can be said with a high degree of probability that further epidemics will occur (Table 3).

Table 3. Examples of extraordinary threats

Year	Event	Consequences (approximate number of victims)
1918-1919	Influenza pandemic ("Spanish flu")	40-50 million
1957-1958	Asian flu	1.1 million
1968	Hong Kong flu in 1968	1 million
1981-present	HIV/AIDS	25-35 million
2002-2003	SARS (coronavirus) epidemic	770
2009-2010	Influenza A/H1N1 ('swine flu') pandemic	200,000.
2014-2016	Ebola haemorrhagic fever epidemic	11,000.
2015-present	MERS (coronavirus)	850,000.
2019-.....	COVID-19 (coronavirus)	6 690 473 (as at 10.01.2022)

Source: Own compilation based on: O. Jarus, 20 of the worst epidemics and pandemics in history, <https://www.livescience.com/worst-epidemics-and-pandemics-in-history.html>, 22.03.2020; N. LePan, Visualizing the History of Pandemics, <https://www.visualcapitalist.com/history-of-pandemics-deadliest/>, 22.03.2020, WHO Coronavirus (COVID-19) Dashboard, <https://covid19.who.int/>, 10.01.2023.

After every extraordinary event (e.g., the Covid 19 pandemic, the outbreak in the Ukraine), there are claims that people in positions of power, in managerial roles, should have predicted it. People, assessing events in retrospect, claim that they were much easier to predict, than the facts would suggest (Fischhiff, 1975).

In 2021, *The Global Risk Report*, published by the World Economic Forum, infectious diseases ranked first among the world's most serious threats in a time horizon of up to 2 years. This was the psychological effect of the emergence of the COVID-19 pandemic, followed by livelihood crises, extreme weather events, cybersecurity failure and digital inequality. In the medium term (2-5 years), asset bubble bursts, IT infrastructure breakdowns, price instability, commodity shocks, debt crises were identified as the main risks.

In the long term (5-10 years), the main threats could be: weapons of mass destruction, state collapse, biodiversity loss, adverse tech advances, natural resource crises (WEF 2021). A slightly different threat assessment appeared in the 2022 Report. The most significant threats in a time horizon of up to 2 years are: extreme weather, livelihood crises and climate action failure, social cohesion erosion, infection diseases, mental health deterioration. It is worth noting that in the top six, as many as four threats are social in nature.

This can have a huge impact on the functioning of small and medium-sized enterprises. The impact may be exacerbated by the fact that these businesses are largely family-owned. In a 2-5 year time horizon, the following risks were identified in the first places: climate action failure, extreme weather, social cohesion erosion, livelihood crises, debt crises, human environmental damage (here two of the six factors are social in nature). In contrast, the top risks in a 5-10 year time horizon are: climate action failure, extreme weather, biodiversity loss, natural resource crises, human environmental damage, social cohesion erosion (here environmental factors dominate) (WEF 2022).

In addition to predictable risks in the economy, according to Nassim Taleb, there are also Black Swans (Taleb, 2014). These are phenomena that simultaneously have the following characteristics:

- are unexpected (subjectively unlikely),
- have striking consequences,
- In retrospect, they seem to have been foreseeable and explainable,
- do not fit into the models.

This last feature seems to be the most interesting. This is because researchers often have a weakness for describing phenomena with schemes, formulas and models, in which observations are forcefully fitted into schemes. Thus one builds, according to N. Taleb, the model of the Mediumship. The cases analysed are mainly those that are most represented by the Gauss curve. The extreme values, which have the attributes

of the Extremistan, are generally discarded as irrelevant. In Extremistan, the situation is stable most of the time, but occasionally chaos arises, resulting in errors. These have serious consequences. Safer is the Average State, which records many deviations from the norm but none are extreme (Taleb, 2020).

If a phenomenon of the Black Swan class occurs (e.g., the 2008 financial crisis) then experts will try to prepare for the same type of risks without seeing other types of Black Swans that have not yet materialised (e.g., the consequences of climate change). Taleb points out in doing so the frailties of empirical research, which is on the one hand quick but on the other highly emotional, uninformed and error-prone. He appreciates the superiority of theoretical research, requiring more effort but informed and logical. He also refers to risks that are partly predictable but whose properties are not fully known. He calls them Grey Swans. He includes, for example, earthquakes, stock market crashes or publishing bestsellers.

Grey Swans are extreme events that can be modelled, Black Swans are unknown unknowns. An important aspect that should be analysed in the case of risks is vulnerability. Here, the literature mainly analyses the vulnerability of systems to climate change and natural hazards: earthquakes, floods, landslides, avalanches, forest fires, droughts, coastal erosion and heat waves (Birkmann, Alexander, and Kienberg, 2014).

In conclusion, it can be said that groupings of states, governments, societies, and companies face a major challenge in facing the Black Swans. Fortunately, there are Grey Swans (risks that are partly foreseeable) and White Swans (risks that are foreseeable) alongside them.

3. Materials and Methods

The original empirical research was undertaken in October 2022, with a focus on the competitiveness of small and medium-sized enterprises in the German-Polish border area in times of extraordinary threats. The research hypothesis was formulated as follows: factors of business competitiveness are variable over time and require constant monitoring in order to maintain business competitiveness. The verification of the hypothesis was subordinated to the objective of identifying the competitiveness factors of small and medium-sized enterprises in times of extraordinary threats.

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 subjects of this research are 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). Therefore, competitiveness studies that focus on large

enterprises (such dominates the literature) cannot be applied directly to SMEs (Man *et al.*, 2002; Chawla *et al.*, 1997).

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:

- The design of the survey questionnaire was based on a 'brainstorming' exercise in which academics (those with at least a PhD) and those with managerial functions in small and medium-sized enterprises were invited to participate.
- Based on the designed survey form, a survey was conducted in April 2022. Based on these surveys, incomprehensible and ambiguous questions were eliminated.
- Competitiveness studies were multi-faceted. In addition to internal factors, external factors resulting from, among other things, extraordinary threats were also taken into account. This approach has already been used (Robinson, 2005).

In effect, respondents were presented with a form consisting of 17 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 competitiveness of small and medium-sized enterprises in times of extraordinary threats:

- The impact of extraordinary threats on the competitiveness of small and medium-sized enterprises.
- Actions taken by small and medium-sized enterprises to remain competitive in times of extraordinary threats.

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 4).

Table 4. *Structure of enterprises by provinces*

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

The first stage of the research sought to determine the impact of extraordinary threats on the competitiveness of small and medium-sized enterprises. First, entrepreneurs were asked whether they expected extraordinary threats (e.g., the 2008/2009 financial crisis, the Covid 19 pandemic or the war in Ukraine). Almost 80 per cent of respondents answered in the affirmative, with the rest stating that they had at least partially expected the risks.

Entrepreneurs were then asked to assess the importance of the impact of extraordinary threats on human competitiveness factors by ranking them. For this purpose, entrepreneurs ranked the given factors from most important to least important. Tables 5 and 6 show the dominance for the determinants.

Among human factors of competitiveness, entrepreneurs were considered by respondents to be the most important, in times of extraordinary threats. Professional managers and engineers were ranked second and employees third. The position of employees is relatively weak.

Perhaps this is due to the fact that the survey was conducted during a pandemic. This is a time when business owners save themselves and their families first and foremost, and employees come next. Politicians and officials are the least important. The assessment across administrative units was very similar. The assessment of physical competitiveness factors is different (Table 6).

Table 5. *Assessment of significance of the impact of extraordinary threats on human competitiveness factors*

No.	Human factors of competitiveness	Territorial units			
		West Pomeranian Voivodeship	Land of Mecklenburg-Western Pomerania	Land of Brandenburg	Total
1.	Employees	3	3	3	3
2.	Politicians and officials	4	4	4	4
3.	Entrepreneurs	1	1	2	1
4.	Professional managers and engineers	2	2	1	2

Note: 1-the most important factor, 4 - the least important factor.

Source: Own study based on conducted research.

Table 6. *Assessment of significance of the impact of extraordinary threats on physical competitiveness factors*

No.	Physical factors of competitiveness	Territorial units			
		West Pomeranian Voivodeship	Land of Mecklenburg-Western Pomerania	Land of Brandenburg	Total
1.	Means of labour	4	4	4	4
2.	Business environment	3	2	3	3
3.	Contributing and related sectors	2	3	2	2
4.	Domestic demand	1	1	1	1

Note: 1 - the most important factor, 4 - the least important factor.

Source: Own study based on conducted research.

According to respondents, extraordinary threats affect domestic demand and contributing and realised sectors the most. They have less impact on the business environment and means of labour. Demand directed at individual businesses is derived from global demand, which is very limited in isolation. Despite the significant impact of the extraordinary on human and physical factors of competitiveness, entrepreneurs also seek to exploit opportunities in the environment. Almost 85% of respondents perceive opportunities for their company. The most

frequently cited benefits are:

- the need for isolation has led to the introduction of many innovative organisational and management solutions. Some of these will remain in companies even after the end of the pandemic (this factor is important for entrepreneurs mainly from the West Pomeranian Voivodeship),
- working on line has resulted in a significant reduction in business costs (this factor is important for entrepreneurs in the West Pomeranian Voivodeship),
- managers have learnt how to manage remote working efficiently and ensure that targets are met (this is the opinion of 57% of respondents),
- the ways of communicating with customers and distributing goods have changed. There are many IT products on the market to support online sales, which could be implemented (a factor indicated equally by entrepreneurs from all surveyed areas. This may be due to the fact that there is frequent German-Polish cooperation between entrepreneurs. The pandemic often prevented direct contacts),
- e-commerce companies, after an initial drop in value, are experiencing high growth (information from entrepreneurs in the West Pomeranian and Brandenburg Voivodeships).

Entrepreneurs also see risks. These include:

- difficulties with tasks (52% of respondents, mainly from Mecklenburg-Vorpommern),
- lower quality of tasks performed (47% of respondents, mainly from Brandenburg),
- lack of trust between employees (42% of companies surveyed). Perhaps this is due to the fear of losing their jobs.

The empirical results obtained confirm the research conducted by Covey, Whitman, and England (2009, pp. 10-11). According to them, the main threats to businesses in unpredictable times are:

- incomplete execution of tasks - despite the established strategy and anticipation of the crisis, not all people in the company are doing what they should.
- crisis of confidence - the level of confidence falls in uncertain times, which can be seen first in the stock market. Employees also lose faith in their companies and a "slowdown" in the company ensues.
- deconcentration - when there are relatively few staff resources in a company, employees try to complete two or more tasks at the same time. This results in less focus and, at the same time, a lower quality of the tasks performed.
- Pervasive fear - economic recession causes psychological crisis. Employees

are afraid of losing their jobs, their savings. Fear makes employees less committed.

The threats listed occur simultaneously, often reinforcing each other. A crisis of confidence causes fear, which leads to distraction. In the second stage, a survey was conducted on the measures taken by small and medium-sized enterprises in Germany and Poland to maintain competitiveness. All enterprises declared that they had taken such measures. These were primarily measures directed at the internal mechanisms of the company. Managers indicated the actions listed in Table 7.

Table 7. *Activities supporting competitiveness in times of extraordinary threats (percentage of enterprises)*

No.	Activities	Territorial units			
		West Pomeranian Voivodeship	Land of Mecklenburg-Western	Land of Brandenburg	Total
1.	Preparation of scenarios of proceedings for subsequent threats	39%	28%	12%	79%
2.	Preparing leaders for change management	26%	32%	18%	76%
3.	Preparing employees to function in conditions of extraordinary threats	25%	22%	37%	84%
4.	Building efficient communication channels	8%	12%	18%	38%
5.	Other activities	2%	6%	15%	23%

Source: Own study based on conducted research.

Respondents believe that the main factor for competitiveness in times of extraordinary threats is the proper preparation of employees (84% of respondents). This factor is mainly appreciated by managers in Brandenburg. A second important factor is the preparation of scenarios for dealing with subsequent threats. These measures were proposed by entrepreneurs after the first wave of COVID 19. It was already known at that time that further waves of illnesses could be expected. This factor is of greatest importance in the West Pomeranian Voivodeship and of least importance in Brandenburg.

At a similar level, respondents rate the preparedness of leaders to manage change. This factor is most important in Mecklenburg-Vorpommern and least important in Brandenburg. Efficient communication channels are important to 38% of the companies surveyed. Another important factor is the appointment of a management leader in times of extraordinary threats. A leader is important, especially in times of extraordinary threats. This is because the outcome is never clear and the situation is uncertain. There is no guarantee of success. But to win, leaders must handle pressure well and act with logic, not emotion. This is the key to victory (Willink and Babin, 2017).

Other competitive factors included:

- building trust within the team,
- stock creation.

Entrepreneurs also recognise the mistakes made in avoiding and overcoming extraordinary threats. The most frequently cited mistakes are:

- raising prices while demand was falling. This was not efficient because people's incomes were also falling (72% of respondents),
- anger, which was the first reaction to a new situation (52% of respondents),
- introducing additional activities with the same or fewer staff (32% of respondents).

Executives say that some of the mistakes could have been avoided if the company had been prepared for the threat. They declare that measures will be taken in this regard once the pandemic is over. These actions will mainly concern human factors-employees. This is an element of the enterprise that can significantly affect the competitiveness of the enterprise in times of extraordinary threats. Entrepreneurs also indicate that they can mainly rely on themselves in the event of adverse situations. Support from other entrepreneurs, family or the government is possible for only 12% of respondents (mainly from the West Pomeranian Region).

The summary of this part of the research is the views of the management level on the competitiveness of the company. 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 (human factors, physical factors, exploitation of opportunities, reduction of threats), every second respondent (median) considered their company to be better than others.

Entrepreneurs from Brandenburg rated themselves best in relation to their competitors, and those from the West Pomeranian Voivodeship rated themselves weakest. When it came to human and physical factors during the war, the majority of respondents (69%) rated themselves at a similar level to the competition. When it came to exploiting opportunities and avoiding threats, entrepreneurs rated themselves mostly (56%) worse than the competition. The rest at a level similar to the competition. The responses regarding the forecast for 2024 are also interesting.

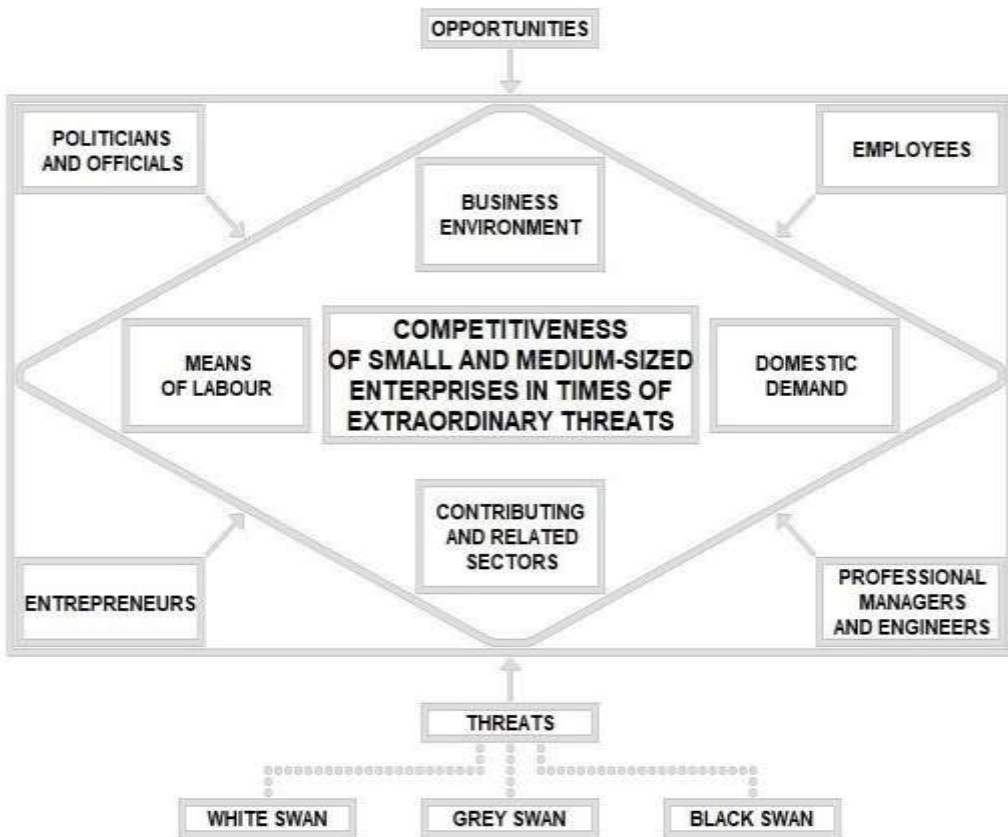
This is the optimistic attitude of entrepreneurs. Respondents believe that it will be after the war in Ukraine. According to entrepreneurs, their competitiveness in all areas (human factors, physical factors, exploitation of opportunities, reduction of threats) will again be higher than the competition. 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

Extensive empirical research, supported by extensive theoretical studies, led to the identification of competitiveness factors for small and medium-sized enterprises in Poland and Germany in times of extraordinary threats. The theoretical basis was the competitiveness factors identified by Cho and Moon (2000). On the basis of further research, this list was supplemented with one more competitiveness factor - risks (Figure 1).

Figure 1. Competitiveness factors of small and medium-sized enterprises in times of extraordinary threats



Source: Own study based on conducted research.

In the proposed model, it is not only its individual elements (resources) that are important, but also the relationships between them. Within the model, processes occur that co-create a certain plan and procedures of action. The effectiveness of entrepreneurs in achieving market competitiveness will therefore be dictated by the

possession of the relevant competitiveness factors and the effective implementation of the processes taking place within the model. Similar postulates in relation to crisis management are made by Alexander (2005, p. 160-165; 2015, pp. 278-280, 2016, p. 119). The recurrence of extraordinary threats makes it an element that should be considered as standard by companies when building a competitive model.

Threats can be seen in two ways. Firstly, they can be threats emanating from the environment - independent of companies, and secondly threats coming from within the company (they are a reaction to external threats). Among the external threats, the most dangerous are the threats that cannot be foreseen - the Black Swan. This is because it is impossible to prepare for them. In addition, there is the Grey Swan - risks that are partly predictable - and the White Swan - risks that can be expected. So it is possible for small and medium-sized enterprises to prepare for some of the risks.

An appropriate response by companies will help them avoid internal threats. The research conducted indicates that entrepreneurs will make such efforts. The basis for applying the concept of SME competitiveness in times of extraordinary threats is the boundary conditions:

- The factors of business competitiveness identified in the concept of D. Cho and H. Moon also occur in times of extraordinary threats.
- The introduction of the concept requires a sound analysis of the human and physical factors of competitiveness at all levels.
- An important factor in competitiveness is the opportunities arising in the company's environment.
- Small and medium-sized enterprises should assume the occurrence of extraordinary threats when determining their competitive strategy. Companies may face risks that cannot be foreseen (Black Swan), risks that are partly foreseeable (Grey Swan) and risks that are predictable (White Swan).
- The identified competitiveness factors are relevant for both businesses operating in more and less developed areas.

In addition to the existence of boundary factors for the introduction of the proposed model, success factors, i.e. those elements that make the success of the project probable, can be assigned to the solution. These include:

- Prepared scenarios for dealing with extraordinary threats.
- Professional managers who are able to function under extraordinary threats.
- An effective team based on mutual trust.
- Efficient communication channels.

An enabling factor would be the avoidance of cardinal errors, which Kanter (2020) formulated as follows:

- Demanding a larger share of a market that is already shrinking - leaders (wanting to maintain profits when sales are falling) seek profits when others are struggling, e.g. raising prices when society's income is falling. This is often the case in crises caused by disasters, epidemics.
- Anger and blame-seeking are emotions from which result in nothing good. They often influence a negative perception of the company.
- Giving in to a slow distraction of goals - trying to become something you are not, when a company's identity is at the core of its values, can end up backfiring. For professionals, this can mean distraction into new areas, while neglecting the area on which the reputation was built. Leaders and employees may no longer be agile enough to compete effectively in the new area, and at the same time may lose competitive potential in the existing market.
- Adding without subtracting - adding new activities without giving up others can lead to over- commitment and an increase in the budget deficit. The ability to consolidate, every time a business grows, requires discipline. However, it is most often lacking.
- The belief that we will "get away with it" - is a mistaken assumption. In a world dominated by *social media*, nothing can be hidden for too long. It is wrong to think that maybe we will get away with it after all. Eventually, something will come to light - in routine audits or during an audit by the tax authority.

Kanter (2020) also points out the solution, the possibility of preventing the mistakes indicated. These are: humility, a desire to serve others, an emphasis on values and goals, a sense of responsibility for the long-term consequences of actions, and an awareness of both strengths and limitations. As the world once again faces powerful challenges that are difficult to foresee, it is worthwhile for leaders to incorporate these assumptions into their business strategies. This can foster recovery from the economic shocks caused by:

- Decrease in production volumes in China in the first quarter of 2020.
- Supply shock to the European and global economies resulting from disruptions related to out-of-the-office work (Covid 19 pandemic) and the war in Ukraine.
- Demand shock for the European and global economy due to lower consumer demand and the negative impact of uncertainty in investment plans.
- Limitation of liquidity in companies.

5. Conclusion

The economic, social, political and climatic changes brought about by the 21st century present many opportunities on the one hand, but also certain risks on the

other. An important part of these can be anticipated and at least partly prepared for. For this to be possible, a new approach to business competitiveness is needed. In times of extraordinary threats, it is proposed to view competitiveness as: the ability of a mega-, macro-, meso- and micro-organism to present a more favourable offer than other participants on the supply side of the market.

Such a construction of the concept of competitiveness will enable it to be preserved for companies not only when foreseeable events occur, but also when Grey Swans and Black Swans emerge. The concept can also find its application in meso-, macro- and mega-economics, especially since more threats are global in nature. Their extent and specificity (e.g., pandemic 2019-..., war in Ukraine 2022-...) require preventive action on a global scale. The poorer countries cannot cope by themselves, neither health-wise nor militarily nor economically. This requires the support of the 'family' (Sachs 2006), within which, it seems indispensable:

- Take extensive preventive measures to prevent further epidemics/pandemics that are highly likely to occur.
- Launching medical research to support the treatment of 'new' diseases.
- The co-responsibility and solidarity of democratic countries for stability and peace in the world.
- Develop economic programmes to sustain prosperity when risks arise, mainly by supporting entrepreneurs/employers.
- Preparation of economic programmes to protect individuals in special need.
- At the level of individual groupings, countries (taking into account their specificities), it seems necessary to diversify the directions of economic cooperation and supply chains, which clearly are not efficient in times of emergency.

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