

**Nowoczesne Systemy Zarządzania**  
Zeszyt 18 (2023), nr 4 (październik-grudzień)  
ISSN 1896-9380, s. 153-170  
DOI: 10.37055/nsz/188849

**Modern Management Systems**  
Volume 18 (2023), No. 4 (October-December)  
ISSN 1896-9380, pp. 153-170  
DOI: 10.37055/nsz/188849



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## Competitive abilities as a factor of market competitiveness for SME sector companies

### Zdolności konkurencyjne jako czynnik konkurencyjności rynkowej firm z sektora MŚP

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**Abstract.** The article presents the essence and interrelation of competitive abilities and market competitiveness of enterprises. The aim of the article was to assess the influence of the degree of development of particular components of competitive abilities on the market competitiveness of the surveyed enterprises of the SME sector, expressed by an increase in their market share compared with their main competitors. The implementation of the assumed objective was based on the results of a survey conducted with the CAPI technique among 1286 enterprises of the SME sector in the Kuyavian-Pomeranian Voivodeship. The results obtained in the empirical-analytical part indicate a significant influence of specific elements of the competitive abilities of enterprises in the SME sector, relating primarily to employee competence, research and development activities and possession of modern technologies on the increase in their market share compared with their main competitors. This leads the author to conclude that the market success of enterprises in the SME sector is determined by a clearly defined configuration of specific resources that form the desired competitive abilities.

**Keywords:** competitiveness, competitive advantage, competitive abilities, resources, small and medium-sized enterprises, SME sector

**Abstrakt.** W artykule przedstawiono istotę i wzajemne powiązania zdolności konkurencyjnych i konkurencyjności rynkowej przedsiębiorstw. Celem pracy była ocena wpływu stopnia rozwoju poszczególnych składowych zdolności konkurencyjnych na konkurencyjność rynkową badanych przedsiębiorstw sektora MŚP, wyrażającego się wzrostem ich udziału w rynku w porównaniu z głównymi konkurentami. Realizacja założonego celu została oparta na wynikach badania ankietowego przeprowadzonego techniką CAPI wśród 1286 przedsiębiorstw sektora MŚP w województwie kujawsko-pomorskim. Wyniki uzyskane w części empiryczno-analitycznej wskazują na istotny wpływ określonych elementów zdolności konkurencyjnych przedsiębiorstw sektora MŚP, odnoszących się przede wszystkim do kompetencji pracowników, działalności badawczo-rozwojowej oraz posiadania nowoczesnych technologii, na wzrost ich udziału w rynku

w porównaniu z głównymi konkurentami. Prowadzi to autorkę do wniosku, że sukces rynkowy przedsiębiorstw z sektora MŚP jest zdeterminowany przez jasno określoną konfigurację konkretnych zasobów, które tworzą pożądane zdolności konkurencyjne.

**Słowa kluczowe:** konkurencyjność, przewaga konkurencyjna, zdolności konkurencyjne, zasoby, małe i średnie przedsiębiorstwa, sektor MŚP

## Introduction

In today's global economy, competitiveness is regarded as a fundamental mechanism for development (Reichel, 2006). The increasingly unpredictable, dynamically changing, and complex conditions of the business environment force, in principle, all competing entities to constantly seek new directions of competitive growth. Today, enterprises face this challenge, which is extremely difficult, especially for those in the small and medium-sized enterprise (SME) sector, which have a depleted potential and thus limited ability to build competitive advantages. For an enterprise to compete effectively, it must stand out from its competitors by being highly competitive (Siviński, 2011), with building high competitiveness being a significant challenge (Zastempowski, 2014). Current monitoring of economic life in Poland, as well as available statistical data, allow us to unequivocally note that the small and medium enterprise sector constitutes the dominant majority of registered companies in the entire economy, thus having a significant impact on its state and development (Szopik-Depczyńska, Depczyński, 2012). Companies operating in the SME sector contribute primarily to strengthening the regional economy and its competitiveness (Kliestik, Valaskova, Lazaroiu et al., 2020; Taymaz, 2005) and through their expansive activities, contribute to a significant reduction in unemployment (Szopik-Depczyńska, Depczyński, 2012). Building and maintaining an appropriately high level of competitiveness by enterprises in the SME sector is a complicated and long-term process (Lemańska-Majdzik, 2022) requiring the continuous provision of appropriately strong competitive abilities, which, on the one hand, is derived from the resources at the enterprise's disposal (Oliver, 1997) and on the other hand, a factor in the level of competitiveness achieved by them (Stankiewicz, 2005).

The article's main objective is to assess the influence of the degree of development of particular components of competitive abilities on the market competitiveness of the studied SME enterprises, expressed in the increase in their market share compared with their main competitors. Its implementation allows the Author to answer the question: Which resources at the disposal of small and medium-sized enterprises have a particular impact on the effects of their market competition?

The results presented in the article were obtained by conducting research using the survey method and CAPI technique. The prepared research tool was addressed to small and medium-sized enterprises in the Kuyavian-Pomeranian Voivodeship, obtaining 1286 correctly completed survey questionnaires.

## **1. Market competitiveness of the company**

The concept of competitiveness is inextricably linked to the concept of competition, being a natural consequence and an integral part of it. In principle, it is impossible to talk about competitiveness without referring to competition, considering one concept in isolation from the other. In order for an enterprise to compete effectively, subjecting itself to the mechanism of competition, it must be distinguished by high competitiveness, which is an essential condition for its survival and development (Siviński, 2011), and thus a critical issue and challenge for it at the same time (Zastempowski, 2014).

Competition is commonly defined as rivalry between market participants who are pursuing analogous goals, whereby actions taken by one entrepreneur to achieve specific goals complicate, or even prevent, the achievement of those goals by another entrepreneur (Stankiewicz, 2005). It is seen as a process that permeates the relationship between a given group of businesses that undertake a series of specific actions when competing for the favour of customers to achieve comparable goals (Glabiszewski, 2005).

Competitiveness is a complex, multifaceted, complicated, ambiguous phenomenon (Stankiewicz, 2005). The literature even suggests that competitiveness is an abstract and elusive concept (Meifeng, Chen, Zhang, 2022). The OECD defines competitiveness as the ability of firms, industries, regions, nations or transnational groupings to withstand international competition and provide a relatively high rate of return on the factors of production used and relatively high employment on a sustainable basis (Stankiewicz, 2005). On the other hand, M.E. Porter defines competitiveness simply as the result of a firm's productivity (Porter, 2001). J.E. Lombana (2006) equates a company's competitiveness with being profitable and maintaining a dominant position in the market. Competitiveness is also defined as a firm's ability to continue to provide added value to its stakeholders (Dwyer, Kim, 2003). Competitiveness is also often equated with the price or quality level of a product, the productivity of a firm's resources, the cost of production or its competitive advantage. The concept of competitiveness also indicates the greater efficiency of a firm in both the production and supply of products compared to its competitors operating in the market (Wattanapruttipaisan, 2002). M.J. Stankiewicz (2005) views competitiveness as a complex system consisting of four specific interrelated subsystems, i.e. competitive abilities, competitive advantage, competitive instruments and competitive position.

Fitting in with the dominant perception of competitiveness and given the scope of further considerations, the author assumes in the article that competitiveness is the long-term ability of a company to compete effectively, of which its sources, manifestations and effects are an integral part, whereby:

- competing effectively is one that enables a company to achieve its ambitious goals and therefore, outperform its competitors;

- the sources of a company’s ability to compete lie in its potential and how it is used;
- the manifestation of a company’s ability to compete is the competitive advantages it acquires;
- the effects of a company’s ability to compete are the results obtained, which determine its competitive position.

The proposed definition exposes the complexity of the concept of competitiveness and its multidimensionality. Moreover, it represents a systemic approach to competitiveness. Consequently, a company’s competitiveness becomes a kind of aggregate, combining separate but closely related and integrated subsystems, which are competitive abilities and activity in the competitive process using various instruments to gain competitive advantage and competitive position.

The multifaceted nature of the issue of corporate competitiveness translates into diverse possibilities for its classification, which has cognitive and organisational value. Of the many classifications cited in the literature, this article will cite only those that allow a better understanding of the essence of competitiveness in the context of the relationships considered in the empirical part.

One of the essential criteria for differentiating competitiveness is the area of activity in which companies build and achieve it, which can be the sphere of their resources or target market. Within this criterion, M.J. Stankiewicz (2005) distinguishes the following:

- the competitiveness “at the entry” of the company’s business;
- competitiveness “at the output” of the company’s activities.

“Inbound” competitiveness refers to a firm’s ability to pursue objectives related to resource acquisition transactions effectively. In contrast, “exit” competitiveness defines the ability to effectively pursue objectives related to transactions that ensure acceptance of the offer proposed in the market (Stankiewicz, 2005).

As companies “at the input” of their activities create demand for resources, while “at the output” they create supply for finished products, similarly, competitiveness considered at these two different stages of activity, and at the same time in different areas, can also be called demand and supply, or resource and market (Glabiszewski, 2005; Gorynia, 2000).

Another important criterion for classifying competitiveness is the moment it is assessed, i.e., the time it is observed. According to this criterion, two types of competitiveness can be distinguished (Gorynia, 2001):

- *ex post* competitiveness;
- *ex ante* competitiveness.

*Ex post* competitiveness refers to the current performance, i.e. the competitive position achieved, and is the result of the competitive strategy pursued by the enterprise and that pursued by competitors. *Ex ante* competitiveness refers to the future competitive position and, therefore, emphasises the company’s ability to compete

in the market, the effects of which are yet to appear. It is, therefore, identified with the enterprise's resources in relation to its competitors, which will ensure specific results in the future (Gorynia, 2001).

An essential subject of the division of a company's competitiveness, referring to the dualism in the perception of its essence, seems to be the causes and effects of competitiveness, according to which a distinction is made between (Stankiewicz, 2005):

- factor competitiveness;
- outcome competitiveness.

Factor competitiveness reflects a company's ability to compete effectively, i.e. to withstand competition, which is shaped primarily by factors such as the speed of response to changes in the environment and the ability to exploit them, the skilful use of own resources and the appropriate use of market instruments. Factor competitiveness is primary in relation to outcome competitiveness, which in turn refers to the company's performance in the competitive process, primarily financial and market performance. It is worth adding that outcome competitiveness should not be treated as the ultimate assessment of factor competitiveness, as the direct measure of the latter should not so much be the improvement of the results achieved but the ability to achieve these results that is maintained in the long term (Bieńkowski, 1995; Glabiszewski, 2005; Stankiewicz, 2005).

## **2. Competitive abilities of the company**

Competitive abilities, being a primary component of systemically conceived competitiveness, are subsystems that co-create the aggregate construct of competitiveness and thus influence the level of competitiveness ultimately achieved. M.J. Stankiewicz (2005) defines competitive abilities as a company's tangible and intangible resources necessary to function in the market and build an advantage. In other words, a system of tangible and intangible resources allows an enterprise to use appropriate instruments to compete effectively in its markets (Godziszewski, 2001). O. Flak and G. Głód define competitive abilities as a set of resources that a company has or should have at its disposal in order to build, maintain and strengthen its competitiveness in the market (Flak, Głód, 2012). J. Bednarz (2013), summarising the essence of an enterprise's competitive abilities, treats it generally as the resources and competencies it possesses.

Competitive abilities, the totality of numerous interrelated resources, is the primary factor determining an enterprise's chances of gaining, maintaining and strengthening its competitive advantage over its competitors. The heterogeneity of enterprises, or in fact of their potentials, resulting from the dissimilarity of the resources at their disposal, determines the disparities in the ability to build

competitive advantages and the results achieved in the competitive process (Oliver, 1997). This ability results from many different elementary and organisation-wide components, including, among other things, managers' skills, entrepreneurship, expansiveness, predisposition to stay in the market and increase their market shares, etc. (Klimontowicz, 2013). Competitive abilities are the totality of a company's tangible and intangible resources necessary for it to be able to function in the market competition arena or, in other words, it is a set of tangible and intangible resources that enable a company to gain a competitive advantage by optimally using them in the creation of competitive instruments (Stankiewicz, 2005). Competitive abilities are. Therefore, those resources that an enterprise should have at its disposal should be able to be used to build, maintain, and strengthen its competitiveness.

In order to comprehensively and systemically proceed to the formation of the structure of the competitive abilities of the enterprise, it is necessary to correctly classify and systematise the resources that constitute it, taking into account all their possible categories. At the same time, it should be remembered that an appropriate selection of resources determines the high competitiveness of an enterprise and, consequently, its real chances of achieving market success.

One primary classification of resources divides them into tangible and intangible, otherwise known as visible and invisible, tangible and intangible, or soft and hard (Haffer, 1999). Tangible resources are distinguished by their physical form, defining the tangible but also specific personal (in the sense of the physicality of specific employees) components of a company's capital. Intangible resources, on the other hand, are those that do not have a physical form but constitute the human and organisational capital of the enterprise. This category of resources includes, among others, the product brand, the company's reputation, employees' skills, internal knowledge, signed commercial contracts, implemented procedures, intra-organisational systems, etc. (Dzikowska, Gorynia, Jankowska, 2016). M.J. Stankiewicz (2005) includes relationships, employee competencies, functional systems, capabilities and attitudes as intangible resources.

Tangible and intangible resources can consequently be classified into four distinct resource categories (Barney, 1997):

- financial capital;
- physical capital;
- human capital;
- organisational capital.

Financial capital comprises all monetary resources at the company's disposal. Physical capital includes the technology used and other tangible assets of the enterprise. Human capital, on the one hand, embodies the physical strength of the employees externalised by the material aspect of this capital and, on the other hand, reflects the employees' knowledge, skills, attitudes and experiences, which have a form that is intangible in material terms. Finally, organisational capital represents the organisation's whole characteristics and systemic arrangements (Barney, 1997).

A comprehensive typology of company resources was proposed by W. Glabiszewski (2005) based on the division of intangible resources made by B. De Wit and R. Meyer, who additionally distinguish the categories of relational resources and competencies (Wit, Meyer, 1999). This proposal is presented in figure 1.

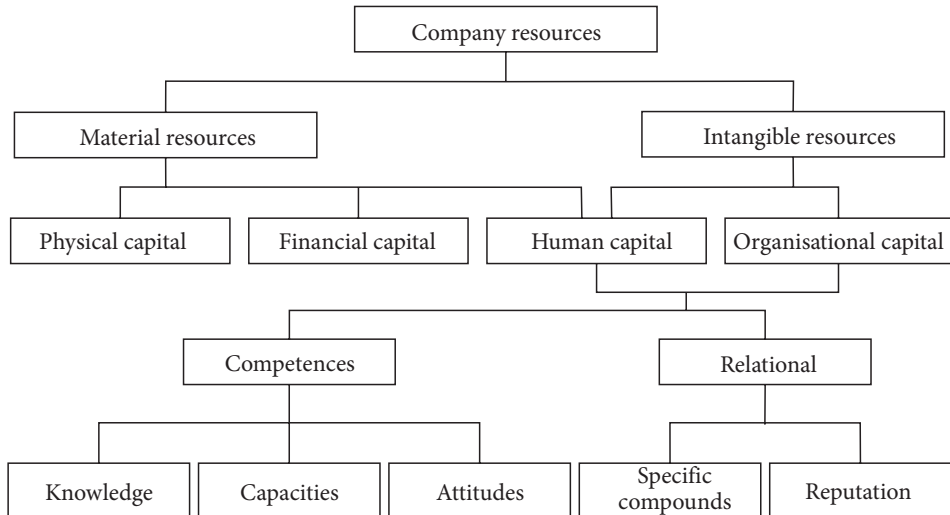


Fig 1. Typology of company resources

Source: Barney, 1997; Wit, Meyer, 1999; Glabiszewski, 2005

When shaping the competitive abilities of an enterprise, it is necessary to take into account not only its structure, taking into account the desired resource categories, but also their appropriate quantity and quality. In addition, the structure of resources forming the competitive abilities of the enterprise must include strategic resources that are particularly important due to their nature, which guarantee the acquisition and maintenance of competitive advantages, on the one hand due to their distinctive characteristics and the interrelationships between them, and on the other hand, due to their alignment with strategic sectoral factors (Faulkner, Bowman, 1996; Schoemaker, Amit, 1997). It is essential that competitive abilities are considered not only from the point of view of ensuring that the right resources are available to the company but also from the point of view of how and to what extent they are used (Gorynia, Jankowska, Pietrzykowski et al., 2011).

Today, in the era of globalisation and intensification of the competitive phenomenon, intangible resources, which are the intangible components of competitive abilities, have a huge impact on the competitiveness of not only small and medium-sized enterprises (Lubomska-Kalisz, 2013). Building competitiveness in the sphere of resources boils down, on the one hand, to searching for and configuring a set of

appropriate resources in the enterprise, as well as modifying them and combining them with other resources, and, on the other hand, to undertaking appropriate activities based on them, which will allow for effective functioning on the market in conditions of intense competition, allowing for the generation of the highest possible profits (Stankiewicz, 2005). J. Lubomska-Kalisz (2013) emphasises that specific components of competitive abilities are a source of competitive advantage for enterprises. Hence, the appropriate configuration of resources and actions taken on their basis enables the enterprise to achieve benefits in the form of synergy effects, which will be reflected in the competitive advantages gained on the market. According to B. Godziszewski, competitive abilities constitutes a space for accumulating sources of competitive advantage, hence it mainly determines its essential dimensions, i.e. type, size and durability (2001). The potential possessed by enterprises, providing the basis for the development of an offer and the use of specific competitive instruments, determines the achievement of specific competitive advantages in the market, which allows the achievement of a specific competitive position (Godziszewski, 2001). Thus, according to theoretical assumptions, the competitive abilities of the enterprise, through the resources that constitute it, determines the competitiveness achieved in the market, which can be expressed in a relatively higher increase in market share than competitors, which is illustratively presented in figure 2, and empirically verified later in the article.

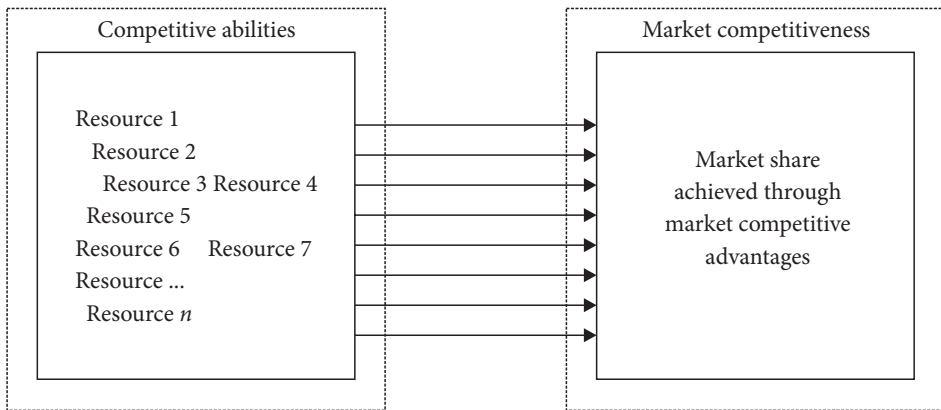


Fig. 2. The role of competitive abilities in shaping market competitiveness

Source: own elaboration based on the literature review



### 3. Material and methods

The study, the results of which are presented in the article, was part of a research and development project entitled *Situating at the level of local governments the instruments of support for SMEs, operating based on the model of multi-level management of the region – REGIOGMINA*, financed by the National Centre for Research and Development (NCBiR) in the area of the Strategic Programme of Scientific Research and Development Works entitled *Social and Economic Development of Poland in Conditions of Globalizing Markets – GOSPOSTRATEG*. The project was implemented by a consortium composed of Kuyavian-Pomeranian Voivodship (project leader), Nicolaus Copernicus University in Toruń and the Warsaw School of Economics. The SMEs participating in the survey were randomly selected by the Kuyavian-Pomeranian Statistical Office, based on the National Official Register of Economy Entities (REGON). The resulting research sample was representative of the Kuyavian-Pomeranian SME population with an error margin of  $\pm 3\%$  at a confidence level of 98%. The initial random sample comprised 3943 SMEs. Complete survey questionnaires were obtained from 1286 SMEs. The respondents were business owners and managers.

The characteristics of the surveyed enterprises are presented in table 1.

The implementation of the empirical part of the article envisaged a survey. As H. Dźwigoł points out (2015), the questionnaire survey method belongs to empirical research methods specific to management sciences. It was carried out using the CAPI (Computer-Assisted Personal Interviewing) technique, the essence of which is interactive, i.e. that the survey takes place in a direct, interpersonal communication situation with the active participation of the interviewer, who reads the questionnaire questions to the respondent and then marks the answers selected by the respondent (Schräpler, Schupp, Wagner, 2006).

The first stage of the empirical part of the research procedure consisted of constructing a survey questionnaire. The survey was conducted among 1286 small and medium-sized enterprises registered in the Kuyavian-Pomeranian voivodship. When defining SMEs, the employment criterion in terms of the European Union was used, according to which a small company has between 10 and 49 employees and a medium company between 50 and 249 (European Commission, 2015). The multidimensional scope of the completed survey is presented in table 2.

Table 1. Structure of the sample

Characteristics	REGON (%)	Samples (%)	Difference: REGON – Sample (% point)
<b>Activities (PKD 2007)</b>			
A – agriculture, forestry, hunting and fishing	2.02	2.50	-0.48
B – mining and quarrying	0.09	0.20	-0.11
C – manufacturing	8.79	24.90	-16.11
D – electricity, gas, steam, hot water and air conditioning	0.30	0.30	0.00
E – water supply; sewage and waste management and remediation activities	0.38	1.90	-1.52
F – building construction	13.51	11.10	2.41
G – wholesale and retail trade; repair of motor vehicles, excluding motorbikes	22.47	26.70	-4.23
H – transport and storage	6.66	2.90	3.76
I – activities related to accommodation and catering services	2.40	3.00	-0.6
J – information and communication	2.63	2.50	0.13
K – finance and insurance	2.98	1.90	1.08
L – activities related to real estate	5.15	3.90	1.25
M – professional, scientific and technical activity	8.44	5.40	3.04
N – administration and support activities	3.15	2.90	0.25
O – public administration and defence; compulsory social security	0.71	0.40	0.31
P – education	3.43	0.80	2.63
Q – health care and social welfare	7.56	4.60	2.96
R – activities related to culture, entertainment and recreation	2.07	0.60	1.47
S – other service activities	7.24	3.70	3.54
<b>Firm size (employees)</b>			
Small: 10-49	82.33	79.08	3.25
Medium: 50 - 259	17.67	20.92	-3.25

Source: own study

The survey also characterised the respondents answering the survey questionnaire. The characteristics of the respondents are presented in table 3.

The largest group of respondents were men (68.5%), people with non-economic education (70.6%), aged 40-49 (51.8%), with 4-10 years of work experience (42.1%) and SME owners (52.7%).

Table 2. Scope of the survey conducted

Scope category	Description of the scope
Scope of the study	cross-sectoral cooperation in terms of building competitive advantages
Scope of the study	small and medium-sized enterprises
Spatial scope of the study	the area of Kuyavian-Pomeranian voivodship
Time scope of the study	second half of 2019

Source: own study

Table 3. Profile of respondents

Characteristics	Sample (%)
<b>Gender</b>	
Woman	31.5
Man	68.5
<b>Education</b>	
Economic	29.4
non-economic	70.6
<b>Age</b>	
Up to 30 years	0.6
31-39	13.1
40-49	51.8
50-59	30.2
60 years and over	4.4
<b>Professional experience (years)</b>	
up to age 3	4.3
4-10	42.1
11-20	41.2
21 and over	12.4
<b>Position held in the company</b>	
Owner	52.7
president/vice-president	16.8
Manager	30.5

Source: own compilation based on survey results

## 4. Data presentation and analysis

All the figures presented in this section of the article are determined on the basis of the respondents' declarations, which represent their answer to the question: how much do they agree with the following statements relating to the individual components of competitive abilities and market share compared to the main competitors. A seven-point Likert scale was used for this question, where 1 meant completely disagree and 7 meant completely agree with the statement.

In order to diagnose the competitive abilities of the SME sector of the Kuyavian-Pomeranian region, their representatives were asked to carry out a self-assessment of the level of development of 24 selected resources belonging to various classifications of both material and non-material, constituting components of financial, physical, human and organisational capital, belonging to competence and relational resources. In turn, to determine the level of their market competitiveness, an assessment was made of the market-like performance they obtain, specifically asking whether their market share is increasing compared to their main competitors. Then, a polynomial probit model of an ordered variable, which assumes a normal distribution of the random component, was used to estimate the model of the influence of the degree of development of the individual components of the competitive abilities on the market competitiveness of the SME enterprises under study, expressed by the achieved increase in market share compared to the main competitors. The model defines an explanatory variable - growth in market share relative to major competitors (C1\_2). The estimation of the model parameters, which was performed in the Gretl programme, is presented below.

Multilevel ordered Probit, observations used 1-1286  
 Dependent variable (Y): C1\_2  
 Hessian-based standard errors

Table 4. Estimation of model parameters

	Coef	Std. Err.	z	p-value
E1_1. We have our own research and development department(s).	-0.0529712	0.0208025	-2.5464	0.01088**
E1_2. We have our own marketing department (cell).	0.0728301	0.0208317	3.4961	0.00047***
E1_3. We use customer information to create new products.	0.130286	0.023079	5.6452	<0.00001***
E1_4. We cooperate intensively in research and development with scientific centres.	-0.0188824	0.0279945	-0.6745	0.49999
E1_5. We collaborate intensively in research and development with other companies.	-0.0374311	0.0284438	-1.3160	0.18819

continuation of tab. 4

E1_6. We have state-of-the-art technology.	0.0523921	0.0232295	2.2554	0.02411**
E1_7. We support our employees in improving their skills.	-0.0896752	0.028684	-3.1263	0.00177***
E1_8. We have knowledge of the current market situation and its segments.	-0.0574154	0.033344	-1.7219	0.08509*
E1_9. We know the current needs of customers.	-0.072113	0.0343439	-2.0997	0.03575**
E1_10. We are able to anticipate future customer needs.	-0.0231911	0.0306311	-0.7571	0.44898
E1_11. We fund development from our own financial resources	-0.054527	0.0251762	-2.1658	0.03033**
E1_12. We use credit.	-0.0455117	0.0195388	-2.3293	0.01984**
E1_13. We benefit from the European Union's resources.	-0.00280341	0.00394907	-0.7099	0.47777
E1_14. We have strong financial capacity.	0.0364419	0.0278241	1.3097	0.19029
E1_15. We coordinate well between different departments.	0.0160938	0.0286124	0.5625	0.57379
E1_16. Our employees have a high degree of decision-making autonomy.	-0.0250309	0.0310534	-0.8061	0.42021
E1_17. Our employees are creative.	0.0494025	0.0333809	1.4800	0.13888
E1_18. Our employees enjoy working together.	-0.15932	0.0352758	-4.5164	<0.00001***
E1_19. Our employees are open to change.	0.138476	0.0333821	4.1482	0.00003***
E1_20. Our employees take reasonable risks.	-0.0586677	0.0275349	-2.1307	0.03312**
E1_21. We have clearly formulated objectives.	-0.00952638	0.0298277	-0.3194	0.74944
E1_22. We react quickly to changes in the environment.	0.0844598	0.0327437	2.5794	0.00990***
E1_23. We have a plan to introduce new products and technologies.	0.0562185	0.0297596	1.8891	0.05888*
E1_24. Be able to anticipate technological changes.	0.0789818	0.0350302	2.2547	0.02415**
cut1	-1.88707	0.0711002	-26.5410	<0.00001***
cut2	-1.29472	0.054354	-23.8202	<0.00001***
cut3	-0.66726	0.0468362	-14.2467	<0.00001***
cut4	-0.0580196	0.0450085	-1.2891	0.19737
cut5	0.718062	0.0474962	15.1183	<0.00001***
cut6	1.54597	0.061285	25.2259	<0.00001***

Legend: \* $p \leq 0.1$ ; \*\* $p \leq 0.05$ ; \*\*\* $p \leq 0.01$ 

Source: own compilation based on survey results

Number of cases of “correct prediction” = 354 (27.5%)

Reliability quotient test: Chi-square(26) = 233.015 [0.0000].

Null hypothesis: random component has a normal distribution

Test statistic: Chi-square(2) = 29.9273 with p-value = 3.17223e-007

Assuming a significance level of 0.1, the effect of the degree of development of the components of competitive abilities on the market competitiveness of the SME enterprises under study is statistically significant for the following variables:

- E1\_2 we have our own marketing department (cell);
- E1\_3 we use customer information to create new products;
- E1\_7 we support our employees to improve their skills;
- E1\_18 our employees enjoy working together,
- E1\_19 our employees are open to change;
- E1\_22 respond quickly to changes in the environment;
- E1\_1 we have our own research and development department (cell);
- E1\_6 we have modern technology;
- E1\_9 we know the current needs of customers;
- E1\_11 we finance development from our own financial resources;
- E1\_12 we use credit,
- E1\_20 our employees take reasonable risks;
- E1\_24 be able to anticipate technological change;
- E1\_8 we have knowledge of the current market situation and its segments;
- E1\_23 we have a plan to introduce new products and technologies.

Of the statistically significant variables, the following have a positive impact on the market share growth of SME companies relative to their main competitors:

- E1\_2 we have our marketing department (cell);
- E1\_3 we use customer information to create new products;
- E1\_18 our employees enjoy working together;
- E1\_19 our employees are open to change;
- E1\_6 we have modern technology;
- E1\_23 we have a plan to introduce new products and technologies;
- E1\_24 be able to anticipate technological change.

Thus, the increase in the development of these seven resources will increase the market share of SME companies relative to their main competitors, i.e., increase their market competitiveness. Thus, these resources should be the focus of managers' attention.

## 5. Discussion

According to theoretical assumptions, not all elements of competitive abilities are equally important in building the market competitiveness of SME enterprises. The literature on the subject emphasises the significant influence of intangible resources on competitiveness – not only that of SMEs. Key competencies, which are the unique combination of technology, knowledge and skills in an organisation, and competencies, which are the set of capabilities and know-how of an organisation, are the most critical (Flak, 2009; Jarecki, Kunasz, Mazur-Wierzbicka, Zwiech, 2010). Also conducted by J. Lubomska-Kalisz (2013), research indicates that intangible resources related to employee qualifications and competencies are among the most vital aspects of the potential of SME enterprises. Also, O. Charucka (2014) indicates that nowadays, enterprises should strive to create a competitive advantage built on human capital.

According to the author's research results, specific employee competencies significantly impact SME enterprises' market competitiveness. These include the willingness to cooperate with other employees, openness to change and the ability to anticipate technological changes. These competencies enable quick adaptation to customer needs, translating into an increased market share of the surveyed enterprises. Adapting their human resources to the requirements of the 21st-century economy is a huge challenge and, at the same time, an opportunity for Polish enterprises from the SME sector, which is why they should base their competitiveness primarily on factors related to employee competencies (Charucka, 2014).

In addition, organisation-wide market competencies, such as an in-house marketing department and using customer information to create new products, as well as modern technologies and having a plan for introducing new products and technologies, became essential factors in increasing market competitiveness. Research by J. Lubomska-Kalisz (2013) shows that while applying the strategy of investing in modern machinery, some entrepreneurs need to care about the high qualifications of the staff. On the other hand, in the long run, the use of modern technologies is only effective if the qualifications of the staff are high and increasing at the same time.

The literature indicates that the elements of competitive abilities directly related to innovation processes, i.e. cooperation with R&D institutions or the amount of the R&D budget, are the least evaluated by managers (Lubomska-Kalisz, 2013). The author's findings also indicated that resources in the R&D sphere could be more developed. Interestingly, intensive cooperation in R&D with scientific centres and other enterprises turned out to be statistically insignificant from the perspective of increasing market share, while having one's own R&D department is statistically significant but has a negative impact. Thus, the involvement of the surveyed enterprises in R&D activities does not translate into the competitiveness achieved in the market. This competitiveness is also not influenced by the creativity of employees and the use of European Union funds.

In addition, factors of competitive abilities such as the ability to anticipate future customer needs, good coordination of cooperation between different departments and having a high degree of decision-making autonomy, as well as the company having a strong financial potential and clearly formulated goals, were found to be statistically insignificant in the author's study. It is undoubtedly worth considering this state of affairs when undertaking further research in this area, as according to G. Sobczyk (2003), meeting contemporary competitive challenges by SME enterprises will only be possible as a result of using all possible sources of achieving a competitive advantage of enterprises that have remained or will start operating on the market.

### Summary

Globalisation and internationalisation of the world economy are increasingly impacting the situation of entities classified as small and medium-sized enterprises, which are subjected to ever-stronger competition in the domestic and foreign markets (Sobczyk, 2003). The intensification of competition, in turn, forces the use of more advanced instruments of competition, the effectiveness of which, on the one hand, is conditioned by competitive abilities and, on the other hand, determines the results achieved in the process of competing on the market.

The obtained results of the research indicate that an increase in the market share of small and medium-sized enterprises in the Kuyavian-Pomeranian voivodship in relation to their main competitors is influenced by seven specific resources, which include their own marketing department, solutions for using information from customers to create new products, willingly cooperating employees, their openness to changes and ability to anticipate technological changes, as well as modern technologies and the plan for introducing new products and technologies, which they own and implement. Thus, the development of these resources should be of particular concern in the process of shaping the competitive abilities of SME companies.

It is worth adding that 15 out of 24 examined variables defining specific resources turned out to be statistically significant, while the increase in development of only 7 of them induces an increase in market competitiveness of the SMEs that own them, i.e. influences a greater increase in market share in relation to competitors. This conclusion recommends that further, more in-depth research be undertaken to verify these results and explain the lack of potentially assumed relationships between the development of other resources and an increase in market share.

The conducted survey was undoubtedly burdened with limitations, which, however, resulted primarily from the adopted assumptions of the research procedure. It was addressed only to enterprises of the SME sector located in the Kuyavian-Pomeranian Voivodeship. Moreover, although the research sample was representative, the results obtained reflect the phenomena characteristic only for



the indicated range of enterprises. In addition, the survey was based on cross-sectional data obtained at a specific point in time, which may have been subjective, as they were the respondents' declarations. The cited limitations may account for the introduction of multidimensional changes in the scope of future research in order to verify, substantiate and complement the results obtained.

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