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## **Resources and their impact on the effectiveness of processes which shape dynamic capabilities of Polish enterprises<sup>1</sup>**

### **1. The concept of dynamic capabilities**

Dynamic capabilities are an essential theoretical construct that is useful for understanding the phenomenon of competition. Dynamic capabilities differ from operational capabilities in that they stress the processes of change management (Karpacz 2013). The existing literature usually points out that dynamic capabilities lie at the core of the company's potential to integrate, create and reconfigure its internal and external competencies to ensure compatibility with the ever-changing conditions of the environment (Teece 2008). K. Eisenhardt and J. Martin (2000) see dynamic capabilities as intra-organisational processes to integrate, reconfigure and obtain or release resources to ensure alignment with the changes on the market or to generate such changes (Eisenhardt, Martin 2010).

Three issues are critical to the concept of dynamic capabilities: the level of capability "dynamics"; the role of anticipatory actions by

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managers; and the impact of the environment on shaping dynamic capabilities. The existing literature identifies three approaches to defining those issues and viewing dynamic capabilities.

The first of these approaches is based on the tenets of evolutionary theory and the concept of strategy founded in the classical microeconomic logic. It assumes that capability dynamics has a rather limited impact on the firm's success and that the role of managers in that process is limited, too. The theory of population ecology and the theory of evolution both assume that, as they develop, organisations form certain habits and routines which are not only the root cause of organisational inertia but also disrupt the process of forming new behavioural patterns. The capability renewal is also impeded by the historical trajectory of the firm's development, complementary assets (their value may be diminished with development of new technologies or new markets), and the "windows of opportunity" (if the organisation fails to adjust its potential in line with emerging technologies and markets, doing so at a later time may prove to be difficult or, in extreme cases, impossible). It should be noted that the historical trajectory of development and complementary assets form an important part of the concept of dynamic capabilities which puts them on a different methodological basis than was traditionally the case.

The second approach sees managers as playing the key role in creating dynamic capabilities. It also assumes that there is a relationship between the pace and nature of changes and the environmental turbulence and dynamics. A "moderately turbulent" environment is one in which changes are a relatively frequent occurrence. These changes are predictable and linear, as a result of which dynamic capabilities may be viewed in terms of routine behaviour. In a "turbulent" environment, capabilities have the form of simple, experimental and dynamic processes. In other words, what lies at the core of evolving dynamic capabilities is the mechanism of learning as influenced by the dynamics and changeability of the environment. The existing literature has therefore posited that dynamic capabilities help to explain phenomena occurring in sectors affected by rapid technological changes. This assumption formed the basis for H. Mintzberg's critique of the school of strategic planning. Mintzberg argued that "analysis" (i.e. strategic planning methodology) should be reserved for organisational management in a relatively stable environment, whereas "synthesis" (i.e. strategic management) should be used in a dynamic and turbulent environment (Mintzberg 1999).

In their analysis of competition phenomena in a dynamic environment, K. Eisenhardt and J. Martin observe that problems in supporting dynamic

capabilities result from improvised management processes. Dynamic capabilities are not “memorised”, which means that external threats to sustainable competitive advantage are compounded by threats of internal nature (Eisenhardt, Martin, 2010). Following on from this observation and assuming that different dynamic capabilities may converge (“best management practices”), K. Eisenhardt and J. Martin present a mechanism for building competitive advantage that differs from mainstream descriptions of dynamic capabilities (Teece 2008). Assuming that sustainable business advantage cannot be achieved in fast-paced sectors, K. Eisenhardt and J. Martin argue that the value of dynamic capabilities for gaining competitive advantage lies in the ability they provide to configure resources and not in the those capabilities per se. Dynamic capabilities are therefore a necessary but insufficient condition for gaining competitive advantage. K. Eisenhardt and J. Martin also point out that the concept of dynamic capabilities should not be presented as a separate paradigm in the theory of strategic management.

The third approach refers to the original tenets of the dynamic capabilities concept (Teece 2008). It assumes that the effective use of dynamic capabilities depends on a level of development of the organization’s meta-capabilities which involve two interrelated factors: the ability to sense new business opportunities and use them effectively. In contrast to the first two approaches, D. Teece’s proposal here combines the idea of the “asymmetrical” advantage and the organisational adaptation to change, and is also a synthesis of the concepts of organisational learning, leadership, entrepreneurship and economic theories of the enterprise. Crucial to D. Teece’s concept is the assumption that ensuring effective learning processes within the organisation is critical to gaining and maintaining competitive advantage (Zollo, Winter 2002). This means that environmental turbulence and dynamics do not determine the degree to which dynamic capabilities are used. The assumption does not mean that organisations should be in a permanent state of change as this would lead to internal chaos in the long run. Moreover, not all of the organisational responses to innovation and change should be seen as dynamic capabilities (Winter 2003).

It is stressed in this context that competitive advantages may only derive from difficult-to-replicate (external and internal) competence-forming processes relating to creation of new combinations of assets in the organisation (Teece, 2008). These dynamic capabilities are not obtainable on the market - they can only be shaped as new capabilities or configured out of existing ones. It is believed that the key role in shaping dynamic capabilities is played by managers and their entrepreneurial behaviours. D. J. Teece sees four organisational capabilities as dynamic capabilities:

- shaping effective innovation and change management processes,
- necessary intuition and vision to create new business models,
- shaping mechanisms for effective investment decisions,
- effective management of transactions.

To build and maintain dynamic capabilities, it is necessary to incorporate mechanisms of real-time response to changes in the environment into the organisational management system (Krzakiewicz, Cyfert 2014).

## 2. Resources and how they are shaping dynamic capabilities of firms

The resource-based view of the firm is based on the Schumpeterian concept of value creation (Schumpeter, 1934) which views organisations as a bundle of resources and capabilities they develop and control. The resource-based view assumes that resources controlled by organisations are their fundamental differentiating factor. If these resources are limited, difficult to imitate, and allow the firm to establish and maintain a sustained competitive advantage, they should be strengthened and used to build a model for long-term organisational development (Barney, 1991), (Hamel, Prahalad; 1990 and 1994). The resource-based view of the firm postulates that value can be created if unique and mutually complementary resources are adequately ordered (Rayport, Jaworski, 2001: 79-87), but only where the firm's resources can boost its revenues or reduce its costs. Accordingly, the foreground issue in the resource-based view is how a firm should use its resources so that value creation is relevant to the market it operates in; controlling those resources is a peripheral concern. A similar premise underlies the concept of dynamic capabilities. The assumption is that learning and change processes are present in all organisations, but only specific types of those processes lead to the development of dynamic capabilities. As such, the role of dynamic capabilities is not so much that of a transmitter/intermediary; rather, they form a mechanism that transforms available resources at different organisational levels into the sources of sustainable competitive advantage. In the dynamic capabilities perspective, the key capability of the organisation is its ability to identify and integrate resources so that its strategy improvement processes can outpace external changes (Stańczyk-Hugiet 2013).

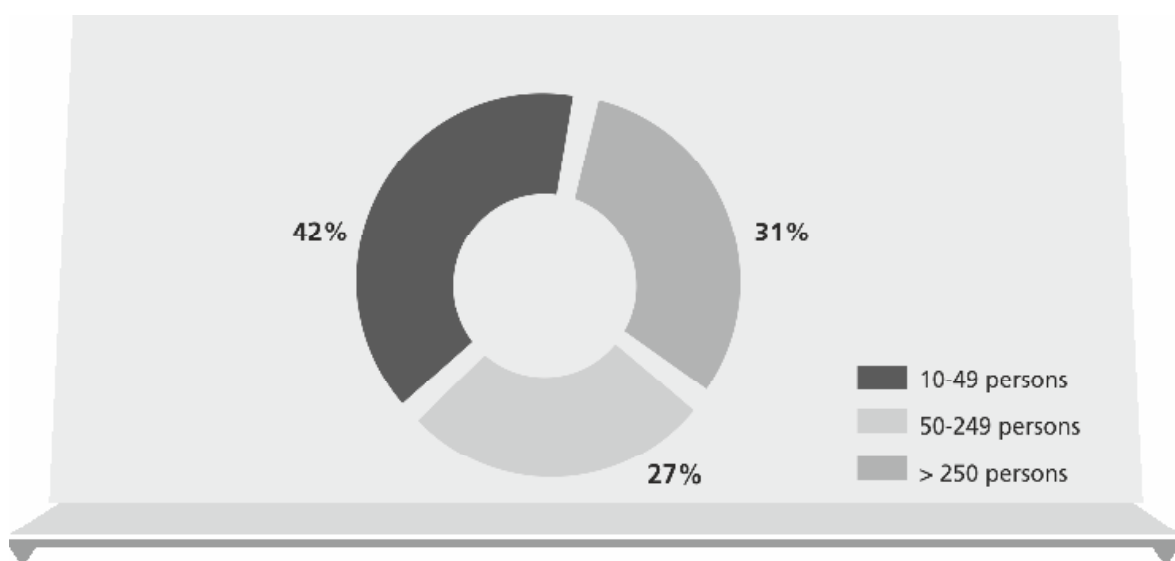
Based on a critical analysis of the subject literature, the following are thought to be key resources in ensuring the effectiveness of processes that shape dynamic capabilities of firms (Eisenhardt, Martin, 2000; Helfat 2007; Teece 2008):

- technological resources and skills,

- financial resources and skills,
- human resources and skills,
- reputational resources and skills,
- structural resources and skills,
- institutional resources and skills,
- market resources and skills.

### 3. Research methodology. Research sample

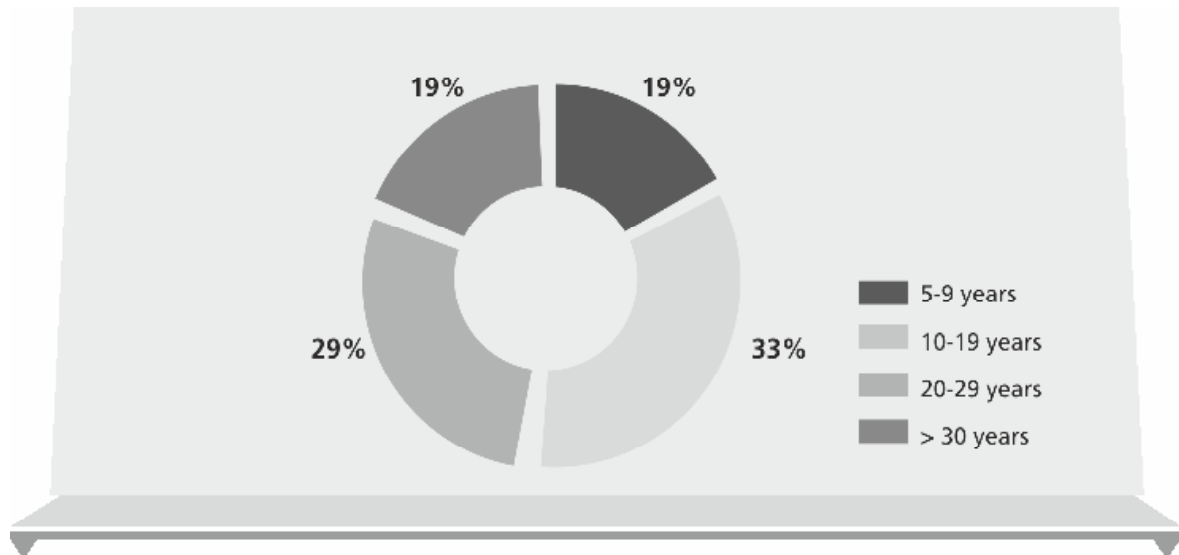
Our research into underlying resources in processes which shape dynamic capabilities in Polish enterprises is part of a larger research project which sets out to develop a paradigm for the concept of dynamic capabilities as it applies to strategic management and identification and analysis of dynamic capabilities in Polish enterprises. This article discusses preliminary findings of a pilot study during which a survey questionnaire was administered to 215 post-graduate students at the Poznań University of Economics. Completed questionnaires were returned by 142 respondents. Because of inconsistent data found during verification, only 127 questionnaires were retained. 42% of the respondents were working for small enterprises, 27% in mid-sized enterprises, and 31% were hired by large enterprises.



**Figure 1. Surveyed enterprises by size, n=127**

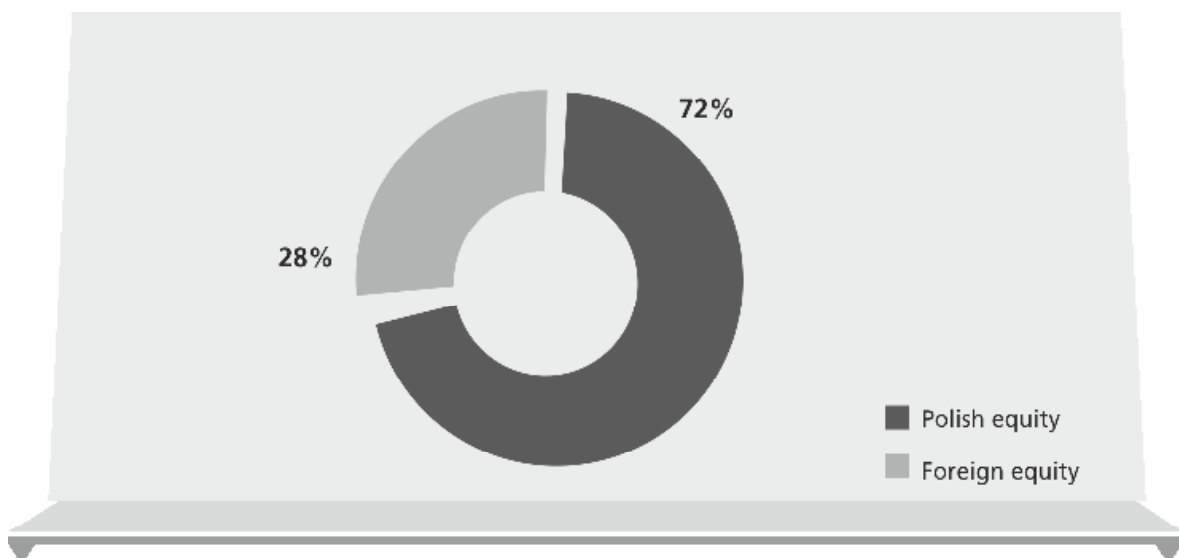
Source: compiled from authors' research

In the population surveyed, enterprises between 10 and 19 years old made up the largest group, at 33%. The percentage of firms between 20 and 29 years old was slightly lower, at 29%. Enterprises in operation for more than 30 years or between 5 and 9 years formed the least populous group (both at 19%).



**Figure 2. Surveyed enterprises by age of business, n=127**

Source: compiled from authors' research



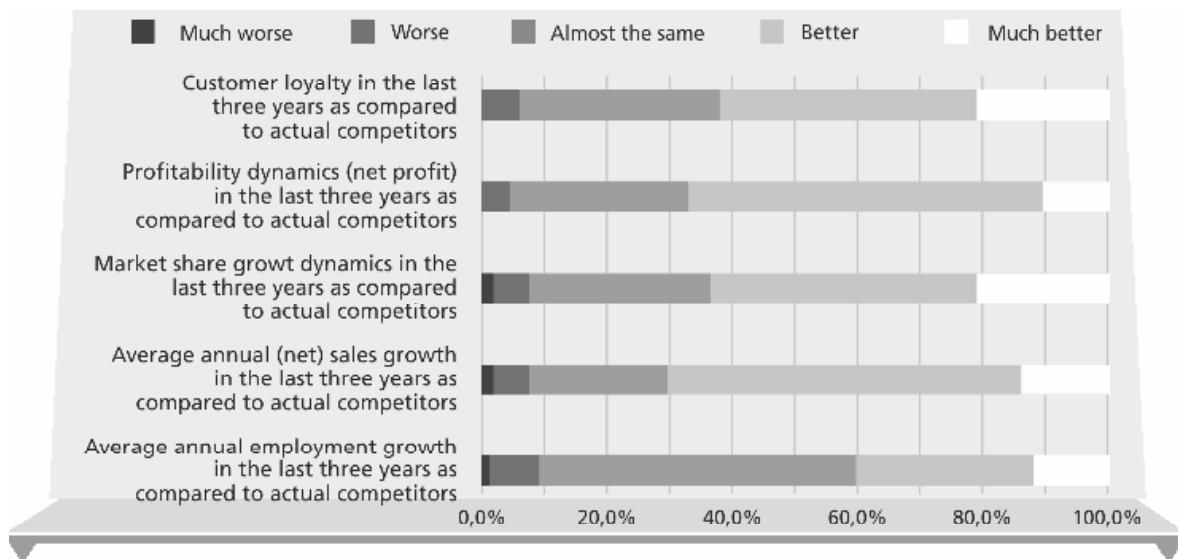
**Figure 3. Surveyed enterprises by equity ownership, n=127**

Source: compiled from authors' research

In terms of equity ownership, Polish-owned enterprises formed a majority of enterprises surveyed, at 72% of the entire population. At 28%, the share of foreign-owned enterprises was slightly lower.

#### 4. Assessing economic effectiveness of the companies surveyed

The average declared value of economic effectiveness for all dimensions examined is at 0.66 (on a scale of -2 to 2, where -2 is much lower effectiveness than for competition, and 2 is much higher effectiveness). Effectiveness among the companies surveyed can therefore be said to be “above average”. When analysing economic effectiveness of the companies surveyed (Dyduch 2013), one notes that results are distributed in a manner which shows correct distribution of collected data: the percentage of extreme ends is negligible and average ratings prevail. The highest effectiveness of actions is observed in relation to the customer loyalty variable (0.86); the lowest effectiveness, on the other hand, is seen in the average annual employment growth (0.44). Nevertheless, the differences between the two variables do not deviate materially from the average declared value of economic effectiveness, which shows that the companies surveyed enjoy a sustainable growth. Based on the collected data, a conclusion is in order that, in the respondents’ opinion, sources of effectiveness should be sought in



**Figure 4. Declared economic effectiveness of the companies surveyed, n=127**

Source: compiled from authors' own research

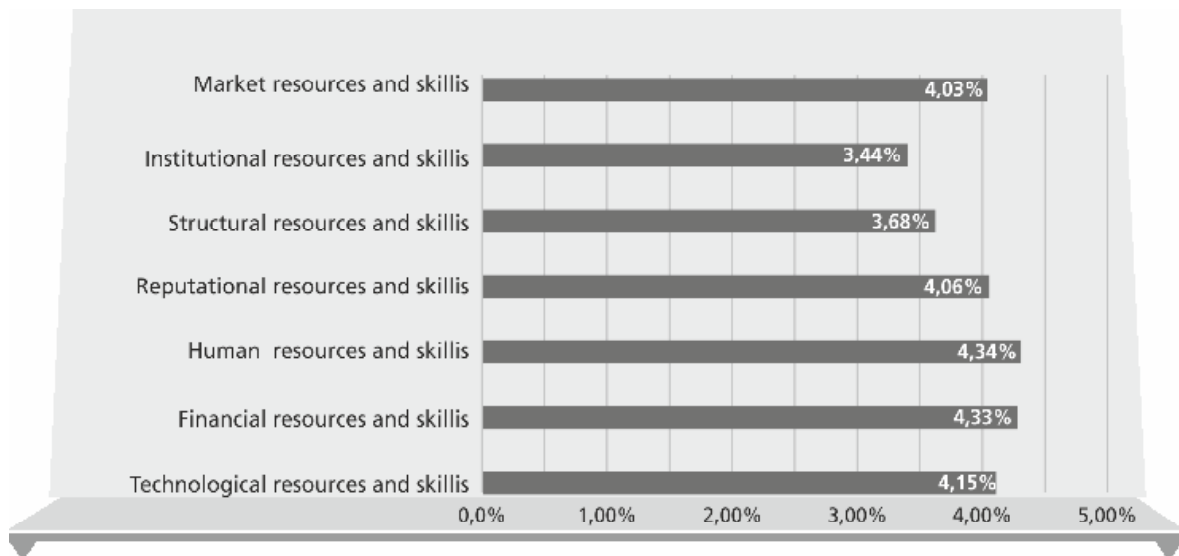
external variables (customer loyalty, market share, sales growth) rather than in internal ones (higher employment). In our research, an attempt was made to determine the impact of individual stages of the dynamic capabilities processes on economic effectiveness.

## **5. Resources and how significant they are for ensuring economic effectiveness of processes which shape dynamic capabilities of Polish enterprises. Research findings**

One observation from our research is that individual resources are very significant for ensuring economic effectiveness of the dynamic capabilities processes in Polish enterprises (the average value for all variables is at 4.01 on a scale from 1 to 5, where 1 stands for “insignificant”, and 5 stands for “very significant”). Through their ratings, the respondents point to a very high significance of human and financial resources (at 4.34 and 4.33, respectively), with institutional and structural resources and skills receiving lower ratings (at 3.44 and 3.68, respectively). A large variation was observed between resources at the extreme ends of the rating scale, testifying to a high significance of intangible resources. At the same time, the high significance of financial resources and skills, as established through our research, does not support a conclusion that significance of tangible resources is low. Most likely, the high significance of financial resources is caused by a limited access to those resources and the liquidity problems in the companies surveyed (because these factors were not analysed in our research, however, there are no data to either confirm or reject this explanation). As for the reasons why institutional and structural resources received low ratings in terms of their impact on the economic effectiveness of processes which shape dynamic capabilities of Polish enterprises, one should point out that they are relatively easily available and can be easily developed within the organisation.

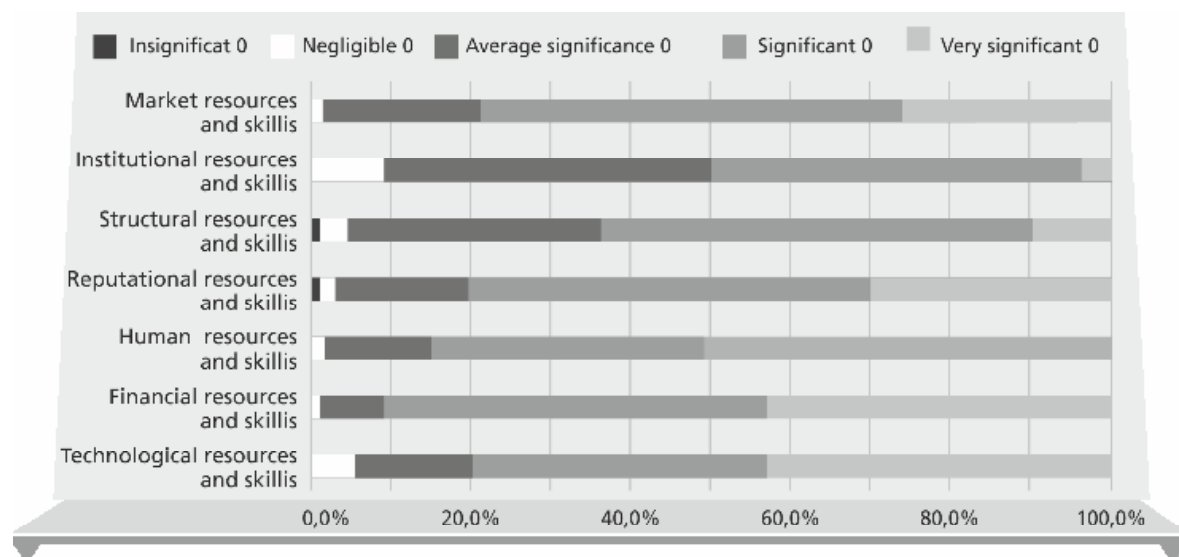
On analysis of the resources examined in terms of their impact on economic effectiveness, we can see that while there is a high percentage of responses rated as significant, there are practically no responses in the “insignificant” category (“insignificant” ratings only come up for technological (1.8%) and structural (0.9%) resources and skills). This lets us conclude that the set is properly structured. Other findings are that the following variables are considered very significant: human resources and skills, financial resources and skills, and technological resources and skills. Given relatively few ratings in the “negligible” and “average significance” categories for those resources, this translates into their relatively high significance.





**Figure 5. Significance ratings for resources which ensure economic effectiveness of dynamic capabilities processes in Polish firms. Average ratings, n=127**

Source: compiled from authors' research



**Figure 6. Significance ratings for resources in terms of their impact on the effectiveness of dynamic capabilities processes in Polish firms, n=127**

Source: compiled from authors' research

## 6. Final remarks

Three general conclusions can be drawn from our research into resources and their impact on the effectiveness of processes that shape dynamic capabilities of Polish enterprises.

Firstly, the average value of economic effectiveness for all dimensions examined is in the “above average” category.

Secondly, we can see that high significance is attached to human and financial resources and skills.

Thirdly, the significance of structural and institutional resources and skills is relatively low, which is a corollary of both their availability and ease of their development.

### Abstract

#### **Resources and their impact on the effectiveness of processes which shape dynamic capabilities of Polish enterprises**

The purpose of this article is to discuss the results of our research into how different resources impact the effectiveness of dynamic capabilities processes in Polish businesses. As a starting point, the article characterises the nature and character of dynamic capabilities in Polish firms as well as highlighting the significance of different resources in developing those capabilities. On that basis conclusions are offered regarding the relationship between those resources and the effectiveness of capabilities-shaping processes.

**Key words:** *resources, dynamic capabilities.*

### Streszczenie

#### **Wpływ zasobów na efektywność procesów kształtowania dynamicznych zdolności polskich przedsiębiorstw**

Celem artykułu jest omówienie wyników postępowania badawczego nad wpływem zasobów na efektywność procesów kształtowania dynamicznych zdolności polskich przedsiębiorstw. Punktem wyjścia w artykule uczyniono charakterystykę istoty i natury dynamicznych zdolności przedsiębiorstw oraz wskazanie na znaczenie zasobów w procesach kształtowania dynamicznych zdolności polskich przedsiębiorstw, co w dalszej części pozwoliło sformułowanie wniosków dotyczących relacji pomiędzy zasobami

a efektywnością procesów kształtowania dynamicznych zdolności polskich przedsiębiorstw.

## Słowa

**kluczowe:** zasoby, dynamiczne zdolności.

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