Injecting courage into strategy: the perspective of competitive advantage

Joanna Radomska, Przemysław Wołczek and Aleksandra Szpulak
Wroclaw University of Economics and Business, Wrocław, Poland

Received 13 December 2019
Revised 11 May 2020
9 July 2020
14 August 2020
2 September 2020
Accepted 8 September 2020

Abstract

Purpose – This study aims to examine the mediating effect of four antecedents of competitive advantage on the linkage of risky strategy to firm performance, measured by revenue dynamics. It considers the roots of competitive advantage to highlight different patterns and foundations of achieving superior performance. It investigates whether pursuing a risky strategy fosters revenue dynamics growth and whether different mediators are included in that relationship.

Design/methodology/approach – Path analysis (structural equation modeling) method is used to analyze data from 122 companies of various sizes and industries. All respondents were responsible for executing strategic management processes. The paper used the subjective perspective, which is based on the individual opinion of senior company managers and owners.

Findings – The authors find a positive relationship between risky strategy and firm performance, but no evidence of a mediating role of competitive advantage and dynamic growth in this relationship. Competitive advantage should be perceived as a set of integrated factors that can be analyzed from an aggregated perspective. Integrating all antecedents requires a holistic and systematic approach and the development of a particular mindset. Aggregated competitive advantage is related to setting dynamic growth as a priority. However, no relationship between risky strategy and achieving competitive advantage, or between implementing a risky strategy and setting dynamic growth as a priority, is observed, which was assumed to explain the revenue dynamics growth.

Research limitations/implications – Secondary data should be analyzed to explore how risky strategies are manifested, and which managerial decisions are reflected in high-level risk. A multidimensional scale could be developed to check how risk shapes the constructs' interdependence. Therefore, the dynamic capabilities approach could be further expanded.

Practical implications – This research offers insights into the short-term relationship between risky strategy and revenue dynamics, although competitive advantage does not mediate that relationship. Special attention should be paid to the selected antecedents of competitive advantage, as they influence dynamic growth.

Originality/value – This work provides insights into different antecedents of competitive advantage, which is not necessarily based on making risky decisions, and into factors that facilitate firm performance measured by revenue dynamics.

Keywords Competitive advantage, Firm performance, Dynamic growth, Risky strategy, Innovation and technology

Paper type Research paper

The project is financed by the Ministry of Science and Higher Education in Poland under the programme "Regional Initiative of Excellence" 2019–2022 project number 015/RID/2018/19, with a total funding amount 10,721,040,00 PLN.

European Business Review
Vol. 33 No. 3, 2021
pp. 505-534
Emerald Publishing Limited
0955-534X
DOI 10.1108/EBR-12-2019-0306

List of abbreviations used

RS = risky strategy;
CA = aggregated competitive advantage;
CA1 = competitive advantage based on high willingness to modify the business model;
CA2 = competitive advantage based on flexibility and high speed of response to environmental challenges;
CA3 = competitive advantage based on setting new standards in the industry;
CA4 = competitive advantage based on innovation and technology;
DP = dynamic growth as a priority; and
RD = revenue dynamics.

1. Introduction

In recent years, the aim of adopting risky strategies (RSs) has been discussed by various researchers (John *et al.*, 2008; Klein and Napier, 2000; Miller and Le Breton-Miller, 2017; Peljhan *et al.*, 2018; Wiklund and Shepherd, 2005). This issue is of particular importance because of its impact on firm performance (John *et al.*, 2008; Mazzarol and Reboud, 2005). However, the research findings are rather inconclusive: some report a positive association between risk and performance (Brealey and Myers, 1981; Croteau and Bergeron, 2001; John *et al.*, 2008; Kollmann and Stöckmann, 2014; Okangi, 2019; Peljhan *et al.*, 2018; Wang and Yen, 2012; Zhang and Fu, 2020), whereas others have suggested a negative relation (Bowman, 1980; Hughes and Morgan, 2007; Kraus *et al.*, 2012; Lechner and Gudmundsson, 2014). Therefore, the direct relationship may be affected by other factors. To investigate this relationship and extend prior research, this study checked five mediators: four antecedents of competitive advantage (CA), and dynamic growth as a priority.

In this paper, we investigate RS, which is perceived as a concept of a company's development where some risky, courageous decisions are taken to gain superior CA or to impose rules of market competition. Therefore, RS reflects the propensity of a firm to undertake risks to pursue profits (John *et al.*, 2008) and should be distinguished from strategy risk, which is a threat that the implemented strategy will result in losses (Kaplan and Mikes, 2012).

The concept of risk-taking is central to strategy research and practice as some theories suggest that avoiding risk in strategy may result in losing valuable development opportunities. For example, this suggestion is confirmed by agency theory, which is based on a behavioral agency model (Wiseman and Gomez-Mejia, 1998) according to which managers who reveal risk aversion give up valuable but risky projects by choosing more conservative strategic options (Gomez-Mejia *et al.*, 2000). Although the implementation of innovations is related to an increased level of risk, we can observe a positive relationship between risk-taking and creativity (Peterson *et al.*, 2003) or innovative activities (Wu, 2008). Therefore, risk-taking can have a positive impact on company performance. Moreover, as pointed out by García-Granero *et al.* (2015), the ability to transfer this approach among employees and to build a culture that fosters risk-taking results in better business performance.

Courage and imagination, which are core parts of the value-creation process, are among the drivers that may enable CA to be gained (Corbett *et al.*, 2013). As mentioned by Miller and Le Breton-Miller (2017), the strategy literature has proposed different concepts to highlight the importance of CA and profits gained from using the extra rent. In our article, we use the perspective proposed by Miller and Le Breton-Miller (2017, p. 668), who define courage as "an active willingness to risk resources [...] and power in the pursuit of objectives with uncertain outcomes." Therefore, we investigate courage, defined as the

willingness to implement an RS, which is rooted in Knight's (1957) classical view on gaining rent based on uncertainty and when results are unsure and difficult to predict in advance. We believe that such rent could be gained by acting beyond the comfort zone, which could be defined as "bravery or daring to push beyond fear" (Klein and Napier, 2000, p. 257), and by using resources to pursue opportunities or to shape the market and build a competitive position based on innovative and risky solutions.

Therefore, courage is manifested by an active approach whereby risky decisions are made to deliver outstanding performance and CA. Such willingness to shape entrepreneurial courage is strictly based on the personal attitude toward risk, persistence or confidence (Klotz and Neubaum, 2016). However, we investigate individual perspective, endeavoring to understand the influence of strategic courage on CA and its antecedents. Therefore, we aim to reveal whether such courage could facilitate opportunity-capturing, shape processes and influence a company's performance as measured by revenue dynamics (RD). This research gap has been highlighted by Miller and Le Breton-Miller (2017). The basis of our research is the dominant logic presented by Porter (1985), who assumed that gaining a CA results from the implementation of specific strategies (in our case, RS), and that having a CA is reflected by specific economic results.

We aim to fill this research gap by understanding the mediating role of CA gained as a result of implementing an RS, as well as the impact of such a strategy on performance measured by RD. To address the issue of measuring RSs, which are the core concept of this paper, we used the subjective perspective, which is based on the individual opinions of the research participants (CEOs, company owners, strategy managers and board members). This is in line with the behavioral view of strategy, according to which strategic actions are affected by the individual perspectives of managers (Gavetti *et al.*, 2012).

2. Theoretical background and hypotheses

As noted by Jemison (1987), risk is perceived as an ongoing phenomenon because it affects decisions *ex post* (measuring results) and *ex ante* (defining presumptions); for this reason, risk is included in strategic management research, especially in the area of strategy content and performance. Another argument, which focuses on the relationship between performance and implementing RS, is based on the fact that both concepts relate to uncertainty and address organizational opportunity, which is the component of CA (Thekdi and Aven, 2019).

A risk-taking attitude can be regarded as one aspect of entrepreneurial orientation, manifested by the willingness to introduce new and uncertain products, in addition to a more proactive attitude toward market challenges (Wiklund, 1999). These assumptions are reflected in dynamic capabilities theory, which Teece *et al.* (2016) developed to remedy rising levels of uncertainty; hence, the idea of introducing more risky approaches was introduced. A number of authors have recognized that dynamic capabilities are crucial factors for innovation development (Coccia, 2014; Helfat *et al.*, 2007). Courage in strategy development has also been analyzed as part of the entrepreneurial orientation concept, which combines three perspectives: innovativeness, risk-taking and proactiveness (Wiklund and Shepherd, 2005). All of these theories aim to identify the antecedents of CA.

The term "competitive advantage" is defined as a unique position that affects outstanding rent and that may reward the risk taken, especially in the long term (Muratovic, 2013). Ross (2014, p. 202), citing Williams (2011), stated that "contemporary management practice explicitly recognizes that firms may choose 'risk-seeking' or 'risk-averse' strategies." Moreover, Fiegenbaum and Thomas (2004) claimed that organizations with risk-seeking attitudes and abilities to achieve CA are likely to have high-return and low-risk

outcome performance profiles. In contrast, organizations that have risk-averse attitudes and are unable to achieve CAs are likely to have low-return and high-risk outcome performance profiles. Buehler *et al.* (2008) noted that companies can even focus on acquiring risks for which they are competitively advantaged. As shown by Sołoducho-Pelc (2014), to build and further develop the advantage, offensive strategies must be implemented. Such proactiveness enables the creation of first-mover advantage (Zahra and Covin, 1995).

We suggest that implementing an RS enhances the likelihood of achieving a significant CA. A risky approach to a company's development can be described as a prospector's strategy (according to the typology of Miles and Snow[1978]) and has already been proved to perform better than other strategy types across different measures of performance (Peljhan *et al.*, 2018), including higher organizational performance (Croteau and Bergeron, 2001). The priority of this strategic approach is to focus on the company's external environment, and more business risk is assumed by attempting to be the market pioneer (Gupta, 2011). Furthermore, representatives of such a strategy are constantly monitoring the external environment to respond quickly to early signs of opportunities that allow them to exploit the benefits of being the first in the market (Mitchell, 1991; Robinson *et al.*, 1992). As a result, implementing an RS enables the creation of change and uncertainty in the marketplace, and such an aggressive approach forces competitors to react accordingly (Stathakopoulos, 1998). This is mainly because companies described as imposing RSs (prospectors) have quite clear priorities in building CA based on introducing new products or services, innovating and even creating new demands (Miles and Snow, 2003). Finally, companies that implement RSs are also more focused on growth perspectives (Hambrick and Snow, 1989). All of these issues present an overview of the different aspects of CA built by implementing a risk-taking strategy.

As demonstrated by Nakano and Nguyen (2012), such a strategy is a fundamental driver of firm performance and generates growth and value (Armstrong and Vashishtha, 2012; Naldi *et al.*, 2007). Therefore, we aim to investigate the relation between RS, CA with different antecedents, dynamic growth and organizational performance (reflected by RD growth). The fundamental issue remains how a CA is built by companies that implement an RS, but the characteristics of this strategy have not been dealt with in depth in the literature. As discussed by Schoemaker *et al.* (2018), the uncertainty reflected by the VUCA paradigm requires developing the specific dynamic capabilities, including new product development, business model innovation, rapid exploration and reshaping the ecosystem. However, there is still an unsatisfactory level of understanding of which antecedents of CA are influenced by the risk-taking propensity of firms, and the relationship between setting dynamic growth as a priority and RS has not yet been established. In our research, the direct relationship between RS and firm performance should be tested in the first stage. Therefore, it is hypothesized that:

H1. Risky strategy is positively associated with firm performance (expressed in revenue dynamics growth).

However, as already mentioned, this direct relationship might be affected by other factors. This assumption comprises the core logic of our research. As CA has different sources, we want to investigate different antecedents, their relationships with RS and their influences on RD. Therefore, based on the perspective proposed by Schoemaker *et al.* (2018), we have chosen four issues for further discussion: modifying the business model, flexibility, setting new standards in the industry and a focus on innovation and technology. The consideration of these issues has enabled the development of research hypotheses.

The first antecedent of CA discussed here is the business model modification. A business model can be defined as a structured model that describes how a company creates and captures value (Amit and Zott, 2001; Johnson *et al.*, 2008; Magretta, 2002; Osterwalder *et al.*, 2005; Richardson, 2008; Teece, 2010). As Casadesus-Masanell and Ricart (2010, p. 195) maintained, "a business model is a reflection of the firm's realized strategy." This approach suggests that the business model can be seen as a tool by which organizations operationalize and implement strategies (Hacklin and Wallnöfer, 2012; Richardson, 2008). When implementing their strategies, companies must take into account the challenges that can affect their business model, and for that reason they are more prone to anchor the new business model in strategic choices (Ammar and Chereau, 2018). Gassmann (2006) stated that these challenges include globalization (driven by a higher mobility of capital, lower logistics costs, more efficient ICT and increased market homogeneity across different countries); technology intensity (which is crucial in some industries, in which even the largest companies struggle to cope with the pace of technological development, or to afford to independently develop technology); technology fusion (resulting in the shift of industry borders); new business models (affected by the rapid shift of many industries and technology borders, as well as the recognition of new business opportunities); and knowledge leveraging (as knowledge became the most important resource, the idea of open innovation was introduced, resulting in the need to develop new capabilities and organizational modes, with the result that a new approach called "outside-in thinking" was developed). Among the challenges mentioned here, it is worth paying attention to new business models that result from the evolution of pure competitive strategies (Salavou, 2015).

If a company wants to take advantage of market opportunities that emerge, it might be necessary to redefine the current business model or develop a new one. This, in turn, might involve adopting more RSs. As argued by Johnson *et al.* (2008, p. 57), "companies should not pursue business model reinvention unless they are confident that the opportunity is large enough to warrant the effort." However, estimating the size of the opportunity and whether it will guarantee a return on the expended efforts can be tough. A risk-taking approach is necessary in such situations. Therefore, we assume that a company undertaking RSs is willing to modify its business model if necessary. This assumption is represented by the following hypothesis:

H2a. Risky strategy enhances the chances of achieving competitive advantage based on the ability to modify a business model (CA1) [1].

Designing and applying new business models is a tool that enables the creation of value, both for clients and for the company. This organizational ability is perceived as an important condition for attaining and maintaining CA (Olko and Brzóska, 2017). As predicted by Malhotra (2001), the shift in the rules of CA has required companies to radically rethink their overall business models. He speculated that more than 70% of risks and returns will depend upon companies' e-business model innovation strategies. This prediction has been confirmed by Bashir and Farooq (2019, p. 374):

> [...] in the current era, success or breakdown of most of the businesses depends upon their capacity to incessantly question and adapt their programed logic of the way things are done.

To support this claim, Bashir and Farooq gave the example of Uber, Xiaomi and Airbnb: these are some of the biggest companies in the world and they are characterized by operating with new business models rather than by having any revolutionary products or services. The multibillion-dollar estimated valuation of these companies clearly indicates the

impact of business model innovation on firm performance (Bashir and Farooq, 2019). According to Adrodegari *et al.*'s (2017) analysis of the issue of business models in industrial companies, a comprehensive transformation from traditional business models, based on product sales, to new product-service systems is an opportunity to increase revenue and gain new CA. As pointed out by Rüb *et al.* (2018), business model innovation has a positive effect on results achieved, which is why we assume that a company's ability to modify a business model impacts its performance (which can be measured by RD growth). This assumption is represented by the following hypothesis:

H3a. Competitive advantage based on the ability to modify a business model enhances revenue dynamics growth.

The second antecedent that we explore is flexibility, as time and speed of reaction have been mentioned as being among the important drivers of competitive position (Barney, 1991; Greve, 2009). As noted by Dreyer and Grønhaug (2004), flexibility is perceived as the requirement not only to gain advantage but also to survive and prosper in unpredictable environments. This is mainly because flexibility enables quick changes in implementation and adjustment (Matejun, 2014). According to Lau (1996, p. 11), "flexibility might ultimately be the key to enhancing a firm's competitive ability"; this relates to the ability to deal with uncertainty. Companies with higher degrees of flexibility are able to deal with different uncertainties better than their competitors. Consequently, companies that are able to successfully reduce various uncertainties by using flexibility have more strategic choices and can adopt a more proactive approach to competing, which can result in strengthening CA.

The era in which organizations' size and complexity were the basis of CA has passed, because these factors require stability in the market and industry (Gray, 2016). However, the accelerating rate of technological changes in recent decades has introduced increasing instability in most markets. Today, a company's ability to react quickly to a dynamic marketplace and environmental challenges, and its use of flexibility to reduce different uncertainties, have become the basis for building CA. As noted by Kamasak *et al.* (2017, p. 273), "strategic flexibility can play a critical role for firms to reduce the risk by offering agile and prudent solutions in volatile environments." It seems, therefore, that the implementation of RSs is linked to elements of CA, such as flexibility and high speed of response to environmental challenges. It can be assumed that RSs require an organization to have a high level of flexibility and a rapid response time, to implement changes quickly and easily in reaction to internal and external impulses. This assumption is reflected by the following hypothesis:

H2b. Risky strategy enhances the chances of achieving competitive advantage based on flexibility and high speed of response to environmental challenges (CA2).

Today's rules of business require companies to have business models that are able to keep up with sustained, dynamic and radical changes in the environment. Flexibility and a high speed of response to environmental changes are crucial for a company's survival. This is because:

> [. . .] in the new world of business there is less premium on playing by predefined rules and more on understanding and adapting as the rules of the game – as well as the game itself – keep changing (Malhotra, 2000, p. 9).

For companies that want to keep up with the dynamic changes in the business environment, this results in some insights based on rethinking the core basis of their current business

models (Malhotra, 2001). As a result, it can be stated that a company's readiness and ability to quickly respond to environmental challenges will influence its performance and might be reflected by RD growth. Thus, the following hypothesis is proposed:

H3b. Competitive advantage based on flexibility and high speed of response to environmental challenges enhances revenue dynamics growth.

The third antecedent explored is based on setting new standards in the industry. As demonstrated by Ross (2014), market rivalry is important to consider when discussing the relationship between risk and performance, mainly because the number of competing firms, as well as their overlapping product market, affects the competitive position of a company. This factor may influence the level of risk taken. Therefore, a proactive approach toward competitors and shaping competitive rules is recommended (Dimoska and Trimcev, 2012). This can enable developing other aspects of competitive position, including technology and innovation (Sołoducho-Pelc, 2014). Proactiveness is manifested by the anticipating perspective of the pioneer approach, and therefore by capitalizing on market opportunities that emerge (Lumpkin and Dess, 1996). As stated by Federico and Capelleras (2015), strategic decisions are undertaken as a response to external drivers. Thus, setting new standards in the industry is both risky and proactive, and it may be a source of CA, mainly by presenting the possibility for the company to dominate the distribution channels or to establish superior brand recognition (Wiklund and Shepherd, 2005). Therefore, there is a need to transform existing resources into business platforms that enable a company to gain superior pioneer advantage (Borch and Madsen, 2007). Thus, the following hypothesis is proposed:

H2c. Risky strategy enhances the chances of achieving competitive advantage based on setting new standards in the industry (CA3).

As mentioned by Strandvik *et al.* (2018), the business landscape for many industries has changed dramatically in recent years. These changes have led to a growing concern that managers' mindsets are outdated and that it is necessary to rethink the strategic perspective to remain competitive. As mentioned by Christensen (1997), the introduction of disruptive innovations in the market has resulted in unexpected failures of many respected and well-managed companies that misaligned their outdated strategy with market changes. Examples of such collapses include Kodak, Nokia, Intel, Polaroid and Blockbuster Video. Companies that try to establish new standards in the industry can be regarded as *market-driving* firms that aim to influence consumers and competitors (e.g. Apple or Tesla, who drive the markets through disruptive technology innovation), in contrast to *market-driven* firms (e.g. DeBeers or Starbucks) that aim to understand and respond to consumers and competitors (Humphreys and Carpenter, 2018). Therefore, the success of market-driving companies lies in their ability to build a mindset for an innovative concept of value rather than to analyze and react to changes. Hence, the market-driving approach is connected with a radical shift in firm orientation from learning to teaching, with the aim of establishing new standards and rules of the game in the industry. Research conducted by van Vuuren and Wörgötter (2013) confirmed that a market-driving approach positively influences firm performance and relative competitiveness. Therefore, we may assume that establishing new standards in the industry might translate into company performance, which may be reflected by RD growth. This assumption is leads to the following hypothesis:

H3c. Competitive advantage based on setting new standards in the industry enhances revenue dynamics growth.

The fourth antecedent analyzed in this study is the focus on innovation and technology. Many studies have discussed innovativeness creativity, and technology as key resources for maintaining CA (Singh, 2012). As mentioned by Ariss *et al.* (2000), these resources are extremely important for small companies that often use technology to maintain their effectiveness. Innovation-oriented goals are, therefore, considered a priority (Bate and Johnston, 2005). In addition, proactive innovations are directly connected with undertaking risky ventures (Miller, 1983). Moreover, as Dobni (2010) noted, inevitable innovation leads to better performance, which is a desired outcome of risk-taking decisions. Furthermore, several studies have suggested that such performance is achieved by companies that are able to align their strategy with their innovation system (Jaruzelski and Dehoff, 2007; Theodosiou *et al.*, 2012). Therefore, an integrated interplay is highly recommended, especially when a higher level of risk is involved (Dobni and Sand, 2018). As Amoroso *et al.* (2017) suggested, there is a relationship between the risk and research and development (R&D) returns, which might indicate that implementing an RS leads to the development of technology and innovation in the company. Accordingly, the following hypothesis is posited:

H2d. Risky strategy enhances the chances of achieving competitive advantage based on innovation and technology (CA4).

According to Ebneyamini and Bandarian (2019, p. 556), "technology is named as the most important element of creating the competitive edge in today's turbulent environment and a key factor of survival in technology-intensive industries." Furthermore, Olko and Brzóska (2017) claimed that, currently, innovations are perceived as the basis for creating a company's value and their implementation should preclude imitability threats. If companies want to create a sustainable CA, they need to innovate (Vaculik *et al.*, 2019). Olko and Brzóska (2017) used a comparative analysis of two steel-sector companies to prove that innovative changes in technological processes improve competitiveness, which results in growth of profitability. Therefore, we may assume that a company's ability to build CA on the basis of technology and innovation impacts on its performance (which can be measured by RD growth). This assumption is represented by the following hypothesis:

H3d. Competitive advantage based on innovation and technology enhances revenue dynamics growth.

The final concept explored in this research is the perception of dynamic growth as a priority. The issue of firm development has been discussed previously, especially from the perspective of small companies (Wiklund *et al.*, 2009). As pointed out by Shulman *et al.* (2011), there is a relation between development based on dynamic growth and the need to undertake actions that are risky and difficult, mainly because of investment requirements. However, McGrath (2001) contended that the outcome of RSs can fluctuate over time, leading to performance variation. A recent study by Vinogradova (2018) concluded that dynamic growth is a crucial driver of financial performance and value creation; hence, some companies perceive dynamic growth as a desired goal. This is observed particularly in the case of young firms, in which dynamic growth is a driver for attracting external sources of financing (Mason and Stark, 2004). Moreover, Federico and Capelleras (2015) argued that, in the early stages of development for those companies, growth strategy is more important than profit.

As we wanted to investigate the risk propensity reflected by implementing an RS and its influence on organizational performance, we assumed that a risk-taking strategy may be manifested by having dynamic growth as a priority. An example of a company blending those two perspectives is Gazelles (Acs and Mueller, 2008). As discussed by Parker *et al.* (2010), exceptional growth rates are always supported by the strategy and are not evidence of unplanned actions. Such a relationship is because of the particular mindset that provides the direction of strategic decisions (more courageous, innovative and flexible). Despite numerous studies demonstrating the relationships between the growth of firms and their performance, different measures were used – that is, growth of sales (Matsuno *et al.*, 2002; Slater and Olson, 2001) or employment growth (Almus, 2002). We used organizational performance as reflected by RD growth to check whether setting dynamic growth as a priority mediates the relation between RS and improved organizational performance. Therefore, we posit the following hypotheses:

H4. Risky strategy has an impact on setting dynamic growth (DP) as a priority.

H5. Dynamic growth as a priority enhances increase in revenue dynamics (RD).

We further tested the hypotheses to understand the mediating effect of CA, based on different antecedents, on the relationship between RS and RD. As already mentioned by researchers, the risk–return trade-offs are influenced by different factors (Tversky and Kahneman, 1981; Harrigan, 1983; Chang and Thomas, 1989). As our paper intended to explore the risk propensity reflected by implementing an RS, the construct was based on subjective risk perspective. Our research procedure was built around the strategic mindset where subjective risk perspective, comprehensive competitive posture and willingness to support dynamic growth are related. The research gap that we identified includes the relations between these factors, and their influence on RD.

3. Research design

3.1 Sample and data collection

To compile the research sample, we identified 150 Polish joint stock companies, based in the Polish capital, of which more than half (50.7%) were listed on the Warsaw Stock Exchange and the New Connect market. The companies differed in size and industry sector. Each company was represented by one respondent. As we wanted to investigate the strategic management process and its changes during companies' development, all respondents – CEOs, owners, strategy managers and board members – were considered responsible for executing strategic management processes. Because of the fact that financial data was missing for some entities, the final sample consisted of 122 companies.

A direct questionnaire interview was used to conduct the study, and the survey was carried out by applying the paper-and-pencil interviewing method. According to the literature review, no scale has yet been developed that would sufficiently fit the research constructs. Therefore, a measurement scale was created using a five-point Likert scale (where 1 = "strongly disagree" and 5 = "strongly agree"). The items were formulated based on the perspectives derived from the literature review and on qualitative interviews with five experts, who were all CEOs responsible for strategy execution. Those experts consulted the set of six statements which we planned to use in our research. As a result, we were able to propose the final version of the questionnaire, which is presented in the Appendix. The data collection enabled us to study respondents' perceptions. This could be considered a limitation of the study because of the subjective perspectives of individuals (Borsboom *et al.*, 2003);

however, as the latent variables represent qualities that are not directly measured (Tabachnick and Fidell, 2001), a subjective perspective was deemed suitable for our study.

3.2 Measures

To measure the construct of RS, we used a subjective risk perspective that involved respondents describing their feelings of engagement in domain-specific risky activities. Such a research approach was used by Weber *et al.* (2002), and the focus on individual managers' perceptions has been applied in various studies (Bouncken *et al.*, 2015). As a result, we captured the self-perception of firm vulnerability, position and strategy (Dorn *et al.*, 2016). We followed the arguments presented by Weber (1997, p. 45), who claimed that "perceived risk is an important dependent variable in its own right, independent from choice." As mentioned by Vij and Bedi (2016), the reluctance of managers to share sensitive data is a reason for applying subjective measures.

Although some CA metrics have been used by other researchers to measure the construct of CA (Saeidi *et al.*, 2015), usually these studies investigated the typical roots, such as price, quality, delivery dependability or product portfolio (Li *et al.*, 2006). In some cases, the measures were used to describe the construct of competitive capabilities (Tracey *et al.*, 1999), even though the same roots were examined. On the other hand, in a study by Sigalas *et al.* (2013), firm competitiveness was examined by using a scale to assess the exploitation of market opportunities and neutralization of threats; however, this scale might be characterized as too vague. Moreover, some research has used a very narrow perspective of measuring CA to investigate only one function, such as logistics (Kwak *et al.*, 2018) or supply (Feizabadi *et al.*, 2019). In our research, we took a more comprehensive view of CA, so we investigated the antecedents identified in our literature study. Our research perspective aimed to understand more complex decisions (such as modifying the business model or focusing on flexibility) rather than just a single factor. As a result, our research procedure was built around how subjective risk perspective, comprehensive competitive posture and willingness to support the dynamic growth were related.

To assess organizational performance, which is a very complex and comprehensive concept, several measures can be used, such as market value versus book-keeping value, revenue growth, share price, return on assets (ROA; Nyberg, 2014), operational excellence, marketing performance and financial return (Ilmudeen *et al.*, 2019). Furthermore, according to Singh *et al.* (2016), organizational performance can be defined in terms of financial ratios [e.g. ROA and return on equity (ROE)], market outcomes (Tobin's Q, market share, stock price and growth), HR-related outcomes (e.g. job satisfaction and commitment) or organizational outcomes (e.g. productivity, service quality and new product development). One of the organizational performance measures is revenue growth (Altinkemer *et al.*, 1998; Herciu and Șerban, 2018; Nyberg, 2014; O'Reilly *et al.*, 2014; Ozcelik *et al.*, 2008). In our research, we were interested in revenue growth as a measure expressed in relative rather than absolute terms – hence, the category of RD growth has been applied. Revenue dynamics as a final predictive variable was measured objectively based on data from financial reports.

3.3 Research framework

To achieve the research goal, an initial structural model with direct and indirect relationships reflecting the hypotheses was created. Therefore, we proposed the research framework shown in Figure 1.

Measurement reliability analysis was completed using Cronbach's alpha coefficient. The hypotheses were tested using structural equation modeling (SEM) and the procedure

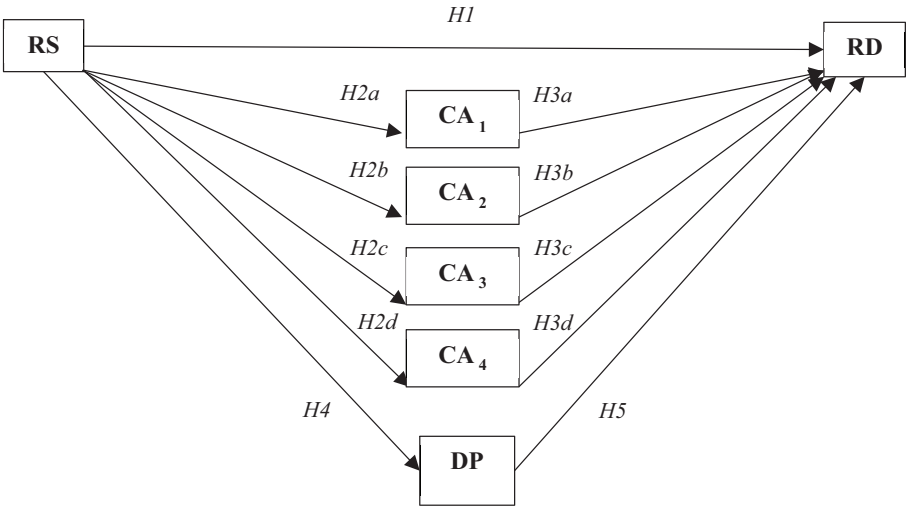


Figure 1.
Research framework

outlined by Baron and Kenny (1986). Empirical analysis was performed using the Statistic a (ver. 13.1) software.

4. Results

4.1 Correlation and reliability analysis

First, we analyzed the correlation matrix and calculated Cronbach's alpha for the sample (see Table 1). The correlation between variables was moderate and low; however, a few statistically significant relationships, at a significance level of 0.05, existed among variables in the analyzed sample.

The implementation of an RS was significantly correlated with RD; this means that the higher the willingness to implement an RS, the higher the RD. Researchers regard a value of Cronbach's alpha of no less than 0.60 is acceptable but indicates weak reliability (Nunnally, 1967). The Cronbach's alpha for the entire group of explanatory measures equaled 0.63, indicating moderate internal consistency. This low Cronbach's alpha value indicates the presence of a significantly random effect between answers given by respondents and might be the result of the sensitivity of this measure to the correlation coefficients and the length of

Variable	Mean	SD	Cronbach's alpha	1	2	3	4	5	6	7
1.RS	3.12	1.20	0.71	1.00						
2. DP	4.04	0.97	0.60	0.04	1.00					
3. CA1	3.43	1.19	0.57	−0.01	0.18*	1.00				
4. CA2	3.93	1.10	0.57	0.04	0.10	0.34*	1.00			
5. CA3	3.75	1.07	0.47	−0.01	0.37*	0.41*	0.35*	1.00		
6. CA4	3.56	1.40	0.51	−0.03	0.24*	0.27*	0.36*	0.66*	1.00	
7. RD	2.00	1.02	na	0.34*	−0.12	0.10	0.06	−0.10	−0.18	1.00

Note: *Significant at the level of $p < 0.05$

Table 1.
Descriptive statistics, correlation and reliability analysis

the scale (DeVellis, 2016). Indeed, the Cronbach's alpha was affected in our study by at least two factors:

(1) a short scale (the shorter the scale, the lower the alpha values); and

(2) a low correlation between measures (the lower the correlation, the lower the alpha values).

In fact, including RS in the measurement scale lowered the overall reliability of explanatory variables, as measured by Cronbach's alpha (i.e. 0.71 when RS was excluded versus 0.63 when RS was included in the data set). Additionally, the investigated antecedents of CAs, according to the results observed in the sample, were related to dynamic growth as a priority. A positive correlation between different antecedents of CA can also be observed. In particular, CA based on innovation and technology (CA4) correlated with other constructs; this was the highest result (0.66) reported for CA based on setting new standards in the industry (CA3).

4.2 Mediation analysis

4.2.1 Main mediation analysis. To test the hypothesis on the mediating role of CA and dynamic growth as a priority in the relation between RS and RD, we used Baron and Kenny's (1986) procedure to test mediation by estimating the following regression equations: first, regressing the dependent variable on the independent variable (noted as path c); second, regressing the mediator on the independent variable (noted as path a); and third, regressing the dependent variable on both the mediator and the independent variable (noted as paths b and c', respectively). To test the indirect mediation effect, we used the Sobel *z*-test in the version popularized by Baron and Kenny (1986). As required by that procedure, the regression analysis was performed using Statistic a ver. 13. The results of the analysis are shown in Table 2.

Although the independent variable RS affects the dependent variable RD, the independent variable RS did not affect all tested mediators; moreover, including the mediator did not remove or even lower the effect of the independent variable RS on the dependent variable RD (path c'). In all cases, the indirect mediation effect (total a × b, depicted in Table 2) was insignificant, as revealed by the *p*-values of the Sobel *z*-test, which were far above the critical 0.05 alpha level. Based on the results, the mediating role of four investigated antecedents of CAs (CA1–CA4) as well as dynamic growth as a priority (DP) cannot be confirmed in our study.

The results of tests of the conceptual model are presented in Table 3. The estimated conceptual model is graphically displayed in Figure 2.

We evaluated the model's goodness of fit by means of the Chi-squared statistic, adjusted goodness-of-fit index (AGFI), Bentler's comparative fit index (CFI), the Bentler–Bonett normed fit index (NFI) and the standardized root mean square residual (SRMR). Schreiber (2017) recommended the following conditions when evaluating a model's goodness of fit: GFI, CFI and NFI $\geq$ 0.95 for acceptance; SRMR $\leq$ 0.08 for acceptance. Based on all the mentioned measures, our initial model did not explain the observed variability of RD (i.e. CFI = 0.107; GFI = 0.731; NFI = 0.160; SRMR = 0.216). Based on the results of our initial structural model, we conclude that, at the level of $\alpha = 0.05$, no evidence within our sample supports the mediating role of antecedents of CAs (CA1–CA4) or dynamic growth as a priority (DP); hence, we rejected hypotheses H_{2a}, H_{2b}, H_{2c}, H_{2d}, H_{3a}, H_{3b}, H_{3c}, H_{3d}, H_4 and H_5.

4.2.2 Additional mediation analysis. To improve the model's quality, we first exploited the correlation between antecedents of CA, and we used confirmatory factorial analysis to load one latent variable, namely, CA, which was thereafter noted as aggregated CA. For this

Mediator	Path	Regression	β coefficient	t-Test for paths: a, b, c and c' Sobel z-test for total (a × b)	p-Value
CA1	c	RS → RD	0.3433	4.0039	0.0001*
	a	RS → CA1	−0.0146	−0.1598	0.8733
	b	CA1 → RD	0.1007	1.1762	0.2419
	c′	RS → RD	0.3448	4.0271	0.0001*
	Total (a × b)	na	−0.0015	0.1583	0.8742
CA2	c	RS → RD	0.3433	4.0039	0.0001*
	a	RS → CA2	0.0381	0.6465	0.6766
	b	CA2 → RD	0.0459	0.5332	0.5949
	c′	RS → RD	0.3415	3.9688	0.0001*
	Total (a × b)	na	0.0018	0.4113	0.6808
CA3	c	RS → RD	0.3433	4.0039	0.0001*
	a	RS → CA3	−0.0140	−0.1536	0.8782
	b	CA3 → RD	−0.0934	−1.0900	0.2779
	c′	RS → RD	0.3420	3.9915	0.0001*
	Total (a × b)	na	0.0013	0.1521	0.8791
CA4	c	RS → RD	0.3433	4.0039	0.0001*
	a	RS → CA4	−0.0262	−0.2876	0.7741
	b	CA4 → RD	−0.1759	−2.0778	0.0398**
	c'	RS → RD	0.3387	4.0031	0.0001*
	total (a*b)	na	0.0046	0.2849	0.7757
DP	c	RS → RD	0.3433	4.0039	0.0001*
	a	RS → DP	0.0380	0.4163	0.6779
	b	DP → RD	−0.1380	−1.6187	0.1082
	c'	RS → RD	0.3485	4.0895	0.0001*
	total (a*b)	na	−0.0052	0.4032	0.6868

Notes: *Significant at the level of $p < 0.001$; **significant at the level of $p < 0.05$

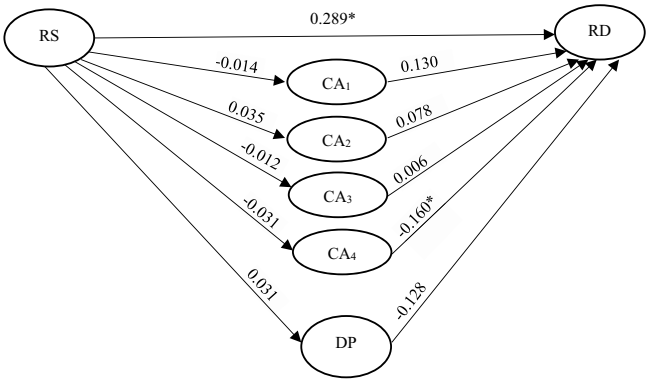
Table 2.
Mediation analysis: paths' coefficients and p-values

Path tested	Parameter estimate	Standard error	t-Statistic	p-Value
[RS] → [RD]	0.289	0.069	4.168	0.000*
[RS] → [CA1]	−0.014	0.090	−0.160	0.873
[RS] → [CA2]	0.035	0.083	0.420	0.675
[RS] → [CA3]	−0.012	0.081	−0.154	0.877
[RS] → [CA4]	−0.031	0.106	−0.289	0.773
[RS] → [DP]	0.031	0.074	0.418	0.676
[DP] → [RD]	−0.128	0.086	−1.496	0.135
[CA1] → [RD]	0.130	0.070	1.849	0.064
[CA2] → [RD]	0.078	0.076	1.025	0.305
[CA3] → [RD]	0.006	0.078	0.078	0.938
[CA4] → [RD]	−0.160	0.059	−2.696	0.007*

Notes: Model fit: $\chi^2(11) = 137.411$; $p = 0.000$; CFI = 0.107; GFI = 0.731; NFI = 0.160; SRMR = 0.216; *significant at the level of $p < 0.05$

Table 3.
Initial model's parameter estimates and goodness-of-fit measures

purpose, we tested the convergent validity and reliability of the four antecedents of CA (CA1–CA4). It is important to note, however, that these antecedents of CA cannot be treated as interrelated. They are four different drivers, so we do not anticipate high values of Cronbach's alpha, as would typically be expected when measuring one construct with one



Note: *Significant at the level of $p < 0.05$

Figure 2.
Estimated initial model with SEPATH

scale of interrelated questions. In this study, we concentrated on the unique correlations of antecedents of CA with the latent variable CA, rather than on the common correlations. To test the convergent validity, we used confirmatory factorial analysis available in the SEPATH module of Statistic a ver. 13.1. The results are presented in Table 4.

The model's goodness-of-fit measures, apart from the NFI, were close enough to critical values (i.e. CFI = 0.952; GFI = 0.973; NFI = 0.938; SRMR = 0.052) to conclude that all measures were statistically significantly for the latent variable measuring aggregated CAs. Although the correlation coefficient was not high, it was significant; consequently, confirmatory factorial analysis provided evidence for sufficient convergent validity of measures.

Additionally, we tested reliability using Cronbach's alpha. The results are presented in Table 5.

Cronbach's alpha was sufficiently high, indicating the measurements were reliable. Finally, to test the reliability of the latent variable CA, we followed Peter (1979): $\rho = 0.76$, which indicated a high reliability of the latent variable CA. This aggregated CA was justified based on the sufficiently high Cronbach's alpha of 0.720 calculated for CA1–CA4. One implemented factor CA explained more than 55% of the total variability of items CA1–CA4 and was significantly correlated to CA3 and CA4. Using the latent variable CA, we

Path tested	Parameter estimate	Standard error	*t*-Statistic	*p*-Value
(CA) → [CA1]	0.455	0.082	5.526	0.000**
(CA) → [CA2]	0.438	0.084	5.232	0.000**
(CA) → [CA3]	0.876	0.065	13.545	0.000**
(CA) → [CA4]	0.746	0.066	11.261	0.000**
(DELTA1)–(DELTA1)	0.793	0.075	10.561	0.000**
(DELTA2)–(DELTA2)	0.808	0.073	11.042	0.000**
(DELTA3)–(DELTA3)	0.232	0.113	2.044	0.041*
(DELTA4)–(DELTA4)	0.443	0.099	4.475	0.000**

Notes: Model fit: $\chi^2(2) = 7.371$; $p = 0.025$; CFI = 0.952; GFI = 0.973; NFI = 0.938; SRMR = 0.052; *significant at the level of $p < 0.05$; **significant at the level of $p < 0.001$

Table 4.
Structural model of latent CA

again applied Baron and Kenny's (1986) procedure to test CA as a mediator of the relation between RS and RD. The results were as follows: path c (RS → RD) coefficient = 0.343 and p-value of 0.0001; path a (RS → CA) coefficient = 0.008 and p-value of 0.932; path b (CA → RD) coefficient = 0.056 and p-value of 0.524; path c' (RS → RD) coefficient = 0.342 and p-value = 0.0001; final total (a × b) equaled 0.0004, resulting in a Sobel z-test value of 0.084 with a corresponding p-value of 0.932. As with the previous analysis, the additional mediation analysis showed no mediation of CA on the relation between RS and RD.

4.3 Structural model respecification

We decided to respecify the model because the tests of the goodness of fit of our initial model did not meet requirements, and we wanted to improve the model's fit. As suggested by Shook *et al.* (2004), this respecification can be done by adding or removing paths among constructs. Such respecification is common in the social sciences because *a priori* models often do not adequately fit the data, which is what occurred in our case. Therefore, we estimated the final model by describing the latent variable CA by CA1–CA4 using SEPATH, which we then nested in our structural model. Because we added the latent variable CA to our model, we also added further paths that we had not previously hypothesized: the first additional path captured the unobserved relationship between CA and DP; the second revealed the relationship between RS and CA; and the third described the relationship between CA and RD. Our estimates of the structural model's parameters are outlined in Table 6 and displayed in Figure 3.

Measures	Average	Variance	SD	Correlation	Cronbach's alpha
			When excluded		
CA1	11.23	8.18	2.86	0.41	0.71
CA2	10.74	8.37	2.89	0.44	0.70
CA3	10.92	7.39	2.72	0.66	0.58
CA4	11.11	6.46	2.54	0.56	0.63

Notes: Cronbach's alpha: 0.720; Std alpha: 0.724; average correlation between measures: 0.407

Table 5. Cronbach's alpha of competitive advantage measures

Path tested	Parameter estimate	Standard error	t-Statistic	p-Value
[RS] → [RD]	0.347	0.079	4.367	0.000**
[RS] → (CA)	−0.016	0.098	−0.166	0.868
[RS] → [DP]	0.044	0.085	0.524	0.600
[DP] → [RD]	−0.113	0.093	−1.224	0.221
(CA) → [RD]	−0.062	0.100	−0.624	0.533
(CA) → [DP]	0.393	0.085	4.639	0.000**
(CA) → [CA1]	0.449	0.081	5.537	0.000**
(CA) → [CA2]	0.411	0.084	4.914	0.000**
(CA) → [CA3]	0.911	0.057	16.025	0.000**
(CA) → [CA4]	0.722	0.062	11.616	0.000**

Notes: Model fit: $\chi^2(11) = 17.104$; $p = 0.104$; CFI = 0.957; GFI = 0.962; NFI = 0.895; SRMR = 0.054; **significant at the level of $p < 0.001$

Table 6. Final structural model's parameter estimates and goodness-of-fit measures

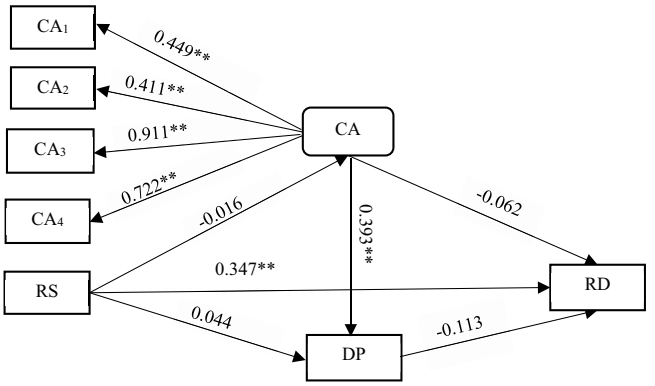


Figure 3.
Estimated structural model

Note: *Significant at the level of $p < 0.01$

As our initial model did not reveal perfect fit indexes, which could be because of insufficiently high correlations between CA1–CA4 and RS and RD, we proposed a specified model without detailed factors. The analysis confirmed that the respecified model had a better fit with the data (i.e. GFI = 0.713 and AGFI = 0.269 for the initial model; GFI = 0.961 and AGFI = 0.901 for the final model). Unlike our initial model, our final structural model yielded much better goodness-of-fit measures ($\chi^2(11) = 17.104$, $p = 0.104$; CFI = 0.957; GFI = 0.962; NFI = 0.895; SRMR = 0.054), with CFI, GFI and SRMR meeting critical values. Based on the evidence from our sample, we can conclude that CA and DP, as well as RS and RD, were positively associated at a significance level of less than 0.001 ([RS] → [RD] = 0.347**; (CA) → [DP] = 0.393**). However, based on the results from our study, we cannot conclude that CA or DP mediates the relationship between RS and RD. Based on the respondents' answers, we have no evidence in our sample to conclude that they believed an RS enhances the chances of achieving CA and has an impact on setting dynamic growth as a priority; additionally, neither CA nor dynamic growth as a priority enhances reported RD growth.

To test the effect of omitting variables, we compared the goodness of fit of a few models: a full model, and models without insignificant paths. We observed how dropping the paths influenced the measures of GFI and AGFI. The results are presented in Table 7.

Based on the results in Table 6, we can conclude that omitting the insignificant paths did not substantially influence the indices: GFI was slightly lower, but it was still slightly above the required value of 0.95, whereas AGFI increased slightly to become close to the required level of 0.95. The Akaike information criterion indicates that the most restricted model was the one we should choose; however, we decided to leave all paths, whether significant or insignificant, in our final model, as the insignificant relation between variables, which the SEM model tests, gives us evidence that the underlying relation cannot be observed in our sample.

5. Discussion

The main results of this study are structured according to our initial predictions where all the antecedents of CA are discussed. Adopting market and product expansion strategies is a necessary condition of organizational growth, as this contributes to firm performance (Filatotchev *et al.*, 2017). As mentioned by Vinogradova (2018), dynamic growth is perceived

Model	GFI	AGFI	Akaike information criterion
Full model	0.961	0.901	0.423
Omitted			
[RS] → [RD]	0.961	0.908	0.408
[RS] → [RD]	0.961	0.915	0.392
[RS] → [CA]			
[RS] → [RD]	0.958	0.916	0.388
[RS] → [CA]			
[DP] → [RD]			
[RS] → [RD]	0.955	0.916	0.384
[RS] → [CA]			
[DP] → [RD]			
[CA] → [RD]			

Table 7.
GFI and AGFI Indices for full and restricted models

as a crucial driver of financial performance and value creation; however, this was not revealed in our results. Our research results did not confirm that dynamic growth as a priority enhances RD. Therefore, we conclude that although dynamic growth is an important factor for building CA, it cannot be perceived as a driver of revenue increase. As Traù (2017) noted, the rhythm and intensity of a firm's growth is explained by the "managerial factor," which is focused on increasing the ability to find creative solutions. Nevertheless, pursuing an RS is not such a managerial ability, as its impact on dynamic growth was not confirmed. Therefore, it is recommended to develop the risk-taking capabilities (absorptive capacity, network resources and organizational slacks) introduced by Tsai and Luan (2016), who argued that recognition of those capabilities will influence risk-taking behavior and a company's performance. Another relation was confirmed in our study, as we revealed the influence of an RS on RD. Additionally, our research showed that more attention should be paid to the antecedents of CA as our aggregated perspective of CA was related to dynamic growth. This confirms Madhok and Marques's (2014) proposal of an action-based approach to firm competitiveness, according to which an entrepreneurial orientation and firm agility are core drivers of competitiveness.

The business model is recognized as a tool to operationalize and implement strategy (Hacklin and Wallnöfer, 2012; Richardson, 2008). Consequently, if a company wants to take advantage of market opportunities, redefining the current business model or developing a new one may be necessary. This, in turn, might lead to more RSs being undertaken. Accordingly, we assumed that a company implementing RSs is willing to modify its business model to achieve CA. Taking into account the results of our investigation, we can state that undertaking RSs is not associated with a willingness to modify the company's business model. At the same time, our research shows that there is a correlation between CA, based on the ability to modify business models, and dynamic growth as a priority. This finding reveals that companies are willing to change their business models to take advantage of emerging market opportunities. This supports Kindström's (2010) argument that companies should adopt a holistic perspective to pay attention to all areas of their business models, rather than just changing isolated elements. As a result, this business model adjustment toward market opportunities means that the company can use those opportunities more comprehensively, which in turn results in setting the priorities around the strategy of growth.

Today, the accelerating speed of various changes – social, demographic, political, environmental and economic – affecting the market increases uncertainty and instability.

To deal with these changes, a company's reaction speed is perceived as an important driver of competitive position (Barney, 1991; Greve, 2009). Additionally, Dreyer and Grønhaug (2004) claimed that a company's flexibility is required not only for gaining an advantage, but also for surviving and prospering in unpredictable environments. Given this, we assumed that RSs require an organization to be flexible and to respond rapidly to changes. However, as our research results have shown, there is no confirmation of the influence of an RS on CA, based on flexibility and high speed of response to environmental challenges. Conversely, however, a relationship between this kind of CA and dynamic growth as a priority was confirmed. This means that companies that quickly respond to and are flexible in managing changes are strongly focused on growth, which has already been discussed by Doyle (1998).

As Kirca *et al.* (2005) noted, there is a link between innovativeness, market orientation and firm performance, which also explains the mediating role of growth strategy. This was confirmed in our research, as we investigated different antecedents of CA. Ismail and Alam (2019) demonstrated that innovativeness significantly and positively influences CA. In the area of technological innovation capabilities, Rahim and Zainuddin (2019) showed that companies' R&D capabilities improve CA and firm performance. Furthermore, Jamshidi (2018) verified that organizational and technological innovation has a positive and significant impact on CA. Colombo and Grilli (2005) discussed the positive relationship between innovation and post-entry performance of new firms, suggesting that the creation of CA based on innovation and technology enhances the chances of growth. However, this relation was not observed in our sample. Our study confirms Volberda and Karali's (2015) claim that superior combinatory resources are needed to achieve CA. This broadly opposes the view presented by Lorenzo *et al.* (2018), who showed that possessing technological capabilities has no influence on performance and, for that reason, is not the explanatory variable of CA. As the relation was negative in this study, our research did not confirm a link between CA, based on innovation and technology, and RD. However, it is still worth investing in such internal resources, as this may enhance absorptive capacity and further develop the innovation capabilities (Li *et al.*, 2010).

Bos and Stam (2014) suggested that innovators who enter the market are likely to create changes in the industry. This is because their willingness to be agile and set the standards is a core antecedent of their CA. Conversely, a mature industry facing radical changes also enables shaping of competition rules. In both cases, a risk-taking attitude is required, which is why we assumed that an RS enhances the chances of achieving CA, based on setting new standards in the industry. Market rivalry is an important factor influencing the relationship between risk and performance (Ross, 2014).

Besides the initial predictions, we used a new perspective in our research where the aggregated CA consisted of four varied items (CA1, CA2, CA3 and CA4). We wanted to check how CA is related to DP and RD. Based on our results, we may assume that companies that use a mixture of competitive activities which compound CA are more prone to establishing a goal in the form of dynamic growth as a priority. On the other hand, having that kind of purpose does not directly translate to achieving firm performance expressed as revenue dynamic growth. Moreover, aggregated CA, as a mix of four different antecedents of CA, does not lead to revenue dynamic growth.

6. Conclusions

6.1 Theoretical contribution and managerial implications

Key findings emerge from our analysis. First, we cannot confirm the assumed influence of implementing an RS on CA, based on four different antecedents, and on setting dynamic

growth as the core priority. Our results demonstrate that the constructs are not correlated; therefore, we cannot state that encouraging companies to implement risky decisions would bring a superior CA and, based on that advantage, increase RD. However, in the short term, a relation between RS and RD can be observed, although the CA, based on four different antecedents, is not a mediator of that relationship.

Second, despite having not replicated the previously suggested relations (Girotra and Netessine, 2011; Wiklund and Shepherd, 2005), our results suggest that special attention should be paid to the selected antecedents of CA, as they influence dynamic growth as a priority. However, our investigation does not allow us to confirm the assumed influence of setting dynamic growth as a priority on RD. Therefore, we state that although it is worth encouraging companies to establish dynamic growth as a priority, realizing this goal would not automatically result in increasing their RD.

Third, our research also demonstrates that CA based on innovation and technology is correlated at the highest level with CA based on setting new standards in the industry. This reasoning seems logical because a company's introduction of innovative solutions and use of new technologies provide the opportunity to challenge existing industry standards and introduce new alternatives, which could generate CA for the company.

The main contribution of our study, therefore, is that CA should be perceived as a set of integrated factors that can be analyzed from an aggregated perspective. Our proposed model could be further developed to examine the process of executing an RS over time. This is important because, as revealed in our study, such a strategy impacts the RD directly with no mediation.

Integrating all the antecedents requires a holistic and systematic approach as well as the development of a particular mindset, which is the first managerial implication of our research. We recommend that attention should be paid to ensuring the effectiveness of all the constructs aggregated in one approach, which provides a perspective where dynamic growth is perceived as a priority among the actions taken.

Furthermore, our research confirms that introduction of innovative solutions and use of new technologies provide the opportunity to challenge existing industry standards and introduce new alternatives, which could generate CA for the company. Implementing a strategy based on innovation and technology that enable setting new standards in the industry is reflected in the market-driving approach of companies. Therefore, technological leadership gains more attention as a strategy that enables building a long-term and coherent advantage aimed at shaping the market rules. For that reason, our second managerial implication is that managers should focus on developing the so-called disruptive technologies that would allow their companies to achieve superior CA. However, as discussed by Kamolsook *et al.* (2019), the dilemma of network externality versus standalone technology has to be considered.

Our final managerial implication is the necessity to provide a networking perspective as an approach useful for facilitating knowledge absorption and developing the specific organizational abilities to integrate different antecedents of CA.

A social implication of our research is the recommendation that policymakers provide favorable conditions for fostering risk-taking initiatives by entrepreneurs, especially by the founders of start-ups. As proved in our research, CA based on innovation and technology is correlated with CA based on setting new industry standards. Moreover, it is often observed that newly established companies challenge existing industry standards and introduce new alternatives, which can revolutionize the market. However, the introduction of these solutions is hazardous and often requires significant financial and organizational support. Therefore, to encourage entrepreneurial organizations to take risky initiatives that build

their CA based on innovation and technology, it is necessary to establish favorable conditions. These conditions should focus on organizational support (offered, for example, by business support institutions) and facilitate access to funds (provided by financial institutions).

Another social implication is that an emphasis on dynamic growth as a priority might not translate into improving organizational performance. This finding can be useful for decision-making processes, not only for companies but also for other organizations, because the pursuit of ambitious goals can sometimes harm the organization's performance.

To sum up, our study advances the understanding of the influence of different antecedents of CA on a firm's performance, expressed in RD. Furthermore, our research suggests that CA should be perceived as a mix of various strategic activities rather focused on in terms of selected, individual activities. The adoption of the mixed perspective of CA requires further research on the relationships between the different components of CA, as well as on the relationships between these components and the company's performance.

6.2 Limitations

The limitations of the present study include our reliance on self-report measures of the research variables. As we have discussed in our paper, risk and RS are both multidimensional and comprehensive concepts that depend on personal psychological perspectives and the mental structure of decision-makers, as well as on the impact of additional conditions, such as the strategic approach or the industry in which the company operates. To provide deeper insights, secondary data should be analyzed to explore how RSs are manifested, and which managerial decisions are reflected in a high level of risk.

Another limitation is that the dependent variable of RD was the only measure used to check the final result of actions taken to gain and maintain CA. Although this variable implies information about a firm's efficiency, another measure could also be used – for example, sales growth rate – to assess the effectiveness of capturing entrepreneurial opportunities (Davidsson *et al.*, 2006).

A further limitation pertains to search sample comprising only Polish companies. We believe that there remains a need for additional research on different types of economies, and a comparative study of companies from different economies should also bring interesting findings and reveal deeper insights.

6.3 Further research

Other avenues for research remain open in the field of CA. Although our assumptions concerning the influence of implementing an RS on achieving CA were rooted in different perspectives and were not confirmed, it is essential to understand the drivers of growth success over a long horizon. We recommend that researchers develop a multidimensional scale capable of identifying all possible constructs, and that they check how risk is involved in shaping the interdependence of these constructs. In such research, the dynamic capabilities approach could also be used.

It could be further explored whether implementing an RS is influenced by a dense network of cooperators and other stakeholders who are the source of relevant data. Future research could also include the perspective of micro-foundations to understand the risk attitude toward different antecedents of CA.

In the area of antecedents generating CA, we limited our investigation to four issues. Therefore, an interesting direction for future research could involve investigating links between an RS and other antecedents of CA. Another direction of future research might concern similarities and differences, in terms of RSs and alternative strategies, between

enterprises. Interesting entities for research on alternative strategies might include enterprises that use a composition-based strategy. This strategy is an element of the composition-based view which "explicates the growth of enterprises that compete and develop without the benefit of resource advantages, core technology, or market power" (Luo and Child, 2015, p. 379). Luo and Child claimed that composition-based logic can be implemented by any firm attempting to catch up with better endowed competitors. The components of the composition-based strategy are compositional capability, offering and competition (Luo and Child, 2015, p. 391). Another intriguing area for future research is an exploration of whether there are any positive relations between these components, CA and RD.

Note

1. The list of abbreviations used can be found at the end of the article.

References

Acs, Z.J. and Mueller, P. (2008), "Employment effects of business dynamics: mice, gazelles and elephants", *Small Business Economics*, Vol. 30 No. 1, pp. 85-100, doi: 10.1007/s11187-007-9052-3.

Adrodegari, F., Pashou, T. and Saccani, N. (2017), "Business model innovation: process and tools for service transformation of industrial firms", *Procedia Cirp*, Vol. 64, pp. 103-108, doi: 10.1016/j.procir.2017.03.056.

Almus, M. (2002), "What characterizes of fast-growing firm?", *Applied Economics*, Vol. 34 No. 12, pp. 1497-1508, doi: 10.1080/00036840110105010.

Altinkemer, K., Chaturvedi, A. and Kondareddy, S. (1998), "Business process reengineering and organizational performance: an exploration of issues", *International Journal of Information Management*, Vol. 18 No. 6, pp. 381-392, doi: 10.1016/S0268-4012(98)00030-9.

Amit, R. and Zott, C. (2001), "Value creation in E-business", *Strategic Management Journal*, Vol. 22 Nos 6/7, pp. 493-520, doi: 10.1002/smj.187.

Ammar, O. and Chereau, P. (2018), "Business model innovation from the strategic posture perspective", *European Business Review*, Vol. 30 No. 1, pp. 38-65, doi: 10.1108/EBR-09-2016-0119.

Amoroso, S., Moncada-Paternò-Castello, P. and Vezzani, A. (2017), "R&D profitability: the role of risk and knightian uncertainty", *Small Business Economics*, Vol. 48 No. 2, pp. 331-343, doi: 10.1007/s11187-016-9776-z.

Ariss, S.A., Raghunathan, T. and Kunnathar, A. (2000), "Factors affecting the adoption of advanced manufacturing technology in small firms", *SAM Advanced Management Journal*, Vol. 65 No. 2, pp. 14-29.

Armstrong, C.S. and Vashishtha, R. (2012), "Executive stock options, differential risk-taking incentives, and firm value", *Journal of Financial Economics*, Vol. 104 No. 1, pp. 70-88, doi: 10.1016/j.jfineco.2011.11.005.

Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120, doi: 10.1177/014920639101700108.

Baron, R.M. and Kenny, D.A. (1986), "The moderator-mediator variable distinction in social psychological research. Conceptual, strategic, and statistical considerations", *Journal of Personality and Social Psychology*, Vol. 51 No. 6, pp. 1173-1182, doi: 10.1037/0022-3514.51.6.1173.

Bashir, M. and Farooq, R. (2019), "The synergetic effect of knowledge management and business model innovation on firm competence: a systematic review", *International Journal of Innovation Science*, Vol. 11 No. 3, pp. 362-387, doi: 10.1108/IJIS-10-2018-0103.

Bate, J.D. and Johnston, R. (2005), "Strategic frontiers: the starting-point for innovative growth", *Strategy and Leadership*, Vol. 33 No. 1, pp. 12-18.

Borch, O.J. and Madsen, E.L. (2007), "Dynamic capabilities facilitating innovative strategies in SMEs", *International Journal of Technoentrepreneurship*, Vol. 1 No. 1, pp. 109-125, doi: 10.1504/IJTE.2007.014731.

Borsboom, D., Mellenbergh, G.J. and van Heerden, J. (2003), "The theoretical status of latent variables", *Psychological Review*, Vol. 110 No. 2, pp. 203-219, doi: 10.1037/0033-295X.110.2.203.

Bos, J.W.B. and Stam, E. (2014), "Gazelles and industry growth: a study of young high-growth firms in The Netherlands", *Industrial and Corporate Change*, Vol. 23 No. 1, pp. 145-169, doi: 10.1093/icc/dtt050.

Bouncken, R.B., Gast, J., Kraus, S. and Bogers, M. (2015), "Coopetition: a systematic review, synthesis, and future research directions", *Review of Managerial Science*, Vol. 9 No. 3, pp. 577-601, doi: 10.1007/s11846-015-0168-6.

Bowman, E.H. (1980), "A risk/return paradox for strategic management", *Sloan Management Review*, Vol. 21 No. 3, pp. 17-31, available at: https://archive.org/details/riskreturnparado00bowm/mode/2up.

Brealey, R.A. and Myers, S.C. (1981), *Principles of Corporate Finance*, McGraw-Hill Book Co., New York, NY.

Buehler, K., Freeman, A. and Hulme, R. (2008), "Owning the right risks", *Harvard Business Review*, Vol. 86 No. 9, pp. 102-112.

Casadesus-Masanell, R. and Ricart, J.E. (2010), "From strategy to business models and onto tactics", *Long Range Planning*, Vol. 43 Nos 2/3, pp. 195-215, doi: 10.1016/J.LRP.2010.01.004.

Chang, Y. and Thomas, H. (1989), "The impact of diversification strategy on risk-return performance", *Strategic Management Journal*, Vol. 10 No. 3, pp. 271-284, doi: 10.1002/smj.4250100306.

Christensen, C.M. (1997), *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*, Harvard Business School Press, Boston, MA.

Coccia, M. (2014), "Driving forces of technological change: the relation between population growth and technological innovation analysis of the optimal interaction across countries", *Technological Forecasting and Social Change*, Vol. 82 No. 1, pp. 52-65, doi: 10.1016/j.techfore.2013.06.001.

Colombo, M.G. and Grilli, L. (2005), "Founders' human Capital and the growth of new technology-based firms: a competence-based view", *Research Policy*, Vol. 34 No. 6, pp. 795-816, available at: https://ideas.repec.org/a/eee/respol/v34y2005i6p795-816.html

Corbett, A., Covin, J.G., O'Connor, G.C. and Tucci, C.L. (2013), "Corporate entrepreneurship: state-of-the-art research and a future research agenda", *Journal of Product Innovation Management*, Vol. 30 No. 5, pp. 812-820, doi: 10.1111/jpim.12031.

Croteau, A.M. and Bergeron, F. (2001), "An information technology trilogy: business strategy, technological deployment and organizational performance", *The Journal of Strategic Information Systems*, Vol. 10 No. 2, pp. 77-99, doi: 10.1016/S0963-8687(01)00044-0.

Davidsson, P., Delmar, F. and Wiklund, J. (2006), "Entrepreneurship as growth: growth as entrepreneurship", Davidsson, P., Delmar, F. and Wiklund, J. (Eds), *Entrepreneurship and the Growth of Firms*, Edward Elgar Publishing, pp. 21-38.

DeVellis, R.F. (2016), "Scale development", *Theory and Applications*, 4th ed., SAGE Publications, University of NC, Chapel Hill.

Dimoska, T. and Trimcev, B. (2012), "Competitiveness strategies for supporting economic development of the touristic destination", *Procedia - Social and Behavioral Sciences*, Vol. 44, pp. 279-288, doi: 10.1016/j.sbspro.2012.05.031.

Dobni, C.B. (2010), "The relationship between an innovation orientation and competitive strategy", *International Journal of Innovation Management*, Vol. 14 No. 2, pp. 331-357, doi: 10.1142/S1363919610002660.

Dobni, C.B. and Sand, C. (2018), "Strategy shift: integrating strategy and the firm's capability to innovate", *Business Horizons*, Vol. 61 No. 5, pp. 797-808, doi: 10.1016/j.bushor.2018.06.002.

Dorn, S., Schweiger, B. and Albers, S. (2016), "Levels, phases and themes of coopetition: a systematic literature review and research agenda", *European Management Journal*, Vol. 34 No. 5, pp. 484-500, doi: 10.1016/j.emj.2016.02.009.

Doyle, P. (1998), "Radical strategies for profitable growth", *European Management Journal*, Vol. 16 No. 3, pp. 253-261, doi: 10.1016/S0263-2373(98)00002-4.

Dreyer, B. and Grønhaug, K. (2004), "Uncertainty, flexibility, and sustained competitive advantage", *Journal of Business Research*, Vol. 57 No. 5, pp. 484-494, doi: 10.1016/S0148-2963(02)00315-6.

Ebneyamini, S. and Bandarian, R. (2019), "Explaining the role of technology in the dynamics of the players business models in the global oil playground", *International Journal of Energy Sector Management*, Vol. 13 No. 3, pp. 556-572, doi: 10.1108/IJESM-09-2018-0004.

Federico, J. and Capelleras, J.-L. (2015), "The heterogeneous dynamics between growth and profits: the case of young firms", *Small Business Economics*, Vol. 44 No. 2, pp. 231-253.

Feizabadi, J., Gligor, D. and Alibakhshi Motlagh, S. (2019), "The triple-As supply chain competitive advantage", *Benchmarking: An International Journal*, Vol. 26 No. 7, pp. 2286-2317, doi: 10.1108/BIJ-10-2018-0317.

Fiegenbaum, A. and Thomas, H. (2004), "Strategic risk and competitive advantage: an integrative perspective", *European Management Review*, Vol. 1 No. 1, pp. 84-95, doi: 10.1057/palgrave.emr.1500002.

Filatotchev, I., Su, Z. and Bruton, G.D. (2017), "Market orientation, growth strategy, and firm performance: the moderating effects of external connections", *Management and Organization Review*, Vol. 13 No. 3, pp. 575-601, doi: 10.1017/mor.2016.31.

García-Granero, A., Llopis, Ó., Fernández-Mesa, A. and Alegre, J. (2015), "Unraveling the link between managerial risk-taking and innovation: the mediating role of a risk-taking climate", *Journal of Business Research*, Vol. 68 No. 5, pp. 1094-1104, doi: 10.1016/j.jbusres.2014.10.012.

Gassmann, O. (2006), "Opening up the innovation process: towards an agenda", *R and D Management*, Vol. 36 No. 3, pp. 223-228, doi: 10.1111/j.1467-9310.2006.00437.x.

Gavetti, G., Greve, H.R., Levinthal, D.A. and Ocasio, W. (2012), "The behavioral theory of the firm: assessment and prospects", *The Academy of Management Annals*, Vol. 6 No. 1, pp. 1-40, doi: 10.1080/19416520.2012.656841.

Girotra, K. and Netessine, S. (2011), "How to build risk into your business model: smart companies design their innovations around managing risk", *Harvard Business Review*, Vol. 89 No. 5, pp. 100-105.

Gomez-Mejia, L.R., Welbourne, T.M. and Wiseman, R.M. (2000), "The role of risk sharing and risk taking under gainsharing", *Academy of Management Review*, Vol. 25 No. 3, pp. 492-507, doi: 10.5465/AMR.2000.3363318.

Gray, P. (2016), "How being fast and flexible can lead to a competitive advantage in business", TechRepublic, available at: www.techrepublic.com/article/how-being-fast-and-flexible-can-lead-to-a-competitive-advantage-in-business/ (accessed 29 November 2019).

Greve, H.R. (2009), "Bigger and safer: the diffusion of competitive advantage", *Strategic Management Journal*, Vol. 30 No. 1, pp. 1-23, doi: 10.1002/smj.721.

Gupta, B. (2011), "A comparative study of organizational strategy and culture across industry", *Benchmarking: An International Journal*, Vol. 18 No. 4, pp. 510-528, doi: 10.1108/14635771111147614.

Hacklin, F. and Wallnöfer, M. (2012), "The business model in the practice of strategic decision making: insights from a case study", *Management Decision*, Vol. 50 No. 2, pp. 166-188, doi: 10.1108/00251741211203515.

Hambrick, D.C. and Snow, C.C. (1989), "Strategic reward systems", Snow, C.C. (Ed.), *Strategy, Organization Design, and Human Resources Management*, JAI Press, Greenwich, CT, pp. 333-368.

Harrigan, K.R. (1983), "Research methodologies for contingency approaches to business strategy", *The Academy of Management Review*, Vol. 8 No. 3, pp. 398-405, doi: 10.2307/257828.

Helfat, C.E., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D.J. and Winter, S.G. (2007), *Dynamic Capabilities: Understanding Strategic Change in Organizations*, Blackwell Publishing.

Herciu, M. and Șerban, R.A. (2018), "Measuring firm performance:testing a proposed model", *Studies in Business and Economics*, Vol. 13 No. 2, pp. 103-114.

Hughes, M. and Morgan, R.E. (2007), "Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth", *Industrial Marketing Management*, Vol. 36 No. 5, pp. 651-661, doi: 10.1016/j.indmarman.2006.04.003.

Humphreys, A. and Carpenter, G.S. (2018), "Status games: market driving through social influence in the U.S. wine industry", *Journal of Marketing*, Vol. 82 No. 5, pp. 141-159, doi: 10.1509/jm.16.0179.

Ilmudeen, A., Bao, Y. and Alharbi, I.M. (2019), "How does business-IT strategic alignment dimension impact on organizational performance measures: conjecture and empirical analysis", *Journal of Enterprise Information Management*, Vol. 32 No. 3, pp. 457-476, doi: 10.1108/JEIM-09-2018-0197.

Ismail, M.D. and Alam, S.S. (2019), "Innovativeness and competitive advantage among small and medium enterprise exporters: evidence from emerging markets in South East asia", *The South East Asian Journal of Management*, Vol. 13 No. 1, pp. 74-91, doi: 10.21002/seam.v13i1.9872.

Jamshidi, J. (2018), "Surveying the impact of innovation and entrepreneurial trends of the organization on the development of export performance (mediating the role of technological innovations and competitive advantage)", *Turkish Online Journal of Design Art and Communication*, Vol. 8, pp. 555-566, doi: 10.7456/1080MSE/166.

Jaruzelski, B. and Dehoff, K. (2007), "The customer connection: the global innovation 1000", strategy and business", available at: www.strategy-business.com/article/07407?gko=3ad6f (accessed 10 December 2019).

Jemison, D.B. (1987), "Risk and the relationship among strategy, organizational processes, and performance", *Management Science*, Vol. 33 No. 9, pp. 1087-1101, doi: 10.1287/mnsc.33.9.1087.

John, K., Litov, L. and Yeung, B. (2008), "Corporate governance and risk-taking", *The Journal of Finance*, Vol. 63 No. 4, pp. 1679-1728, doi: 10.1111/j.1540-6261.2008.01372.x.

Johnson, M.W., Christensen, C.M. and Kagermann, H. (2008), "Reinventing your business model", *Harvard Business Review*, Vol. 86 No. 12, pp. 50-59.

Kamasak, R., Yavuz, M. and Ozturk, T.Y. (2017), "Reducing risk through strategic flexibility and implementation leadership in high-velocity markets", Hacioglu, U. Dincer, H. and Alayoğlu,N. (Eds.) *Global Business Strategies in Crisis*, Springer, pp. 273-286, doi: 10.1007/978-3-319-44591-5_19.

Kamolsook, A., Badir, Y.F. and Frank, B. (2019), "Consumers' switching to disruptive technology products: the roles of comparative economic value and technology type", *Technological Forecasting and Social Change*, Vol. 140, pp. 328-340, doi: 10.1016/j.techfore.2018.12.023.

Kaplan, R.S. and Mikes, A. (2012), "Managing risks: a new framework", *Harvard Business Review*, pp. 48-60.

Kindström, D. (2010), "Towards a service-based business model – key aspects for future competitive advantage", *European Management Journal*, Vol. 28 No. 6, pp. 479-490, doi: 10.1016/J.EMJ.2010.07.002.

Kirca, A.H., Jayachandran, S. and Bearden, W.O. (2005), "Market orientation: a Meta-analytic review and assessment of its antecedents and impact on performance", *Journal of Marketing*, Vol. 69 No. 2, pp. 24-41, doi: 10.1509/jmkg.69.2.24.60761.

Klein, M. and Napier, R. (2000), "The courage to act: what it takes to execute new business strategies", *Journal of Change Management*, Vol. 1 No. 3, pp. 257-272, doi: 10.1080/714042471.

Klotz, A.C. and Neubaum, D.O. (2016), "Research on the dark side of personality traits in entrepreneurship: observations from an organizational behavior perspective", *Entrepreneurship Theory and Practice*, Vol. 40 No. 1, pp. 7-17, doi: 10.1111/etap.12214.

Knight, F.H. (1957), *Risk, Uncertainty and Profit*, Kelley and Millmans, New York, NY.

Kollmann, T. and Stöckmann, C. (2014), "Filling the entrepreneurial orientation-performance gap: the mediating effects of exploratory and exploitative innovations", *Entrepreneurship Theory and Practice*, Vol. 38 No. 5, pp. 1001-1026, doi: 10.1111/j.1540-6520.2012.00530.x.

Kraus, S., Rigtering, J.P.C., Hughes, M. and Hosman, V. (2012), "Entrepreneurial orientation and the business performance of SMEs: a quantitative study from The Netherlands", *Review of Managerial Science*, Vol. 6 No. 2, pp. 161-182, doi: 10.1007/s11846-011-0062-9.

Kwak, D.W., Seo, Y.J. and Mason, R. (2018), "Investigating the relationship between supply chain innovation, risk management capabilities and competitive advantage in global supply chains", *International Journal of Operations and Production Management*, Vol. 38 No. 1, pp. 2-21, doi: 10.1108/IJOPM-06-2015-0390.

Lau, R.S.M. (1996), "Strategic flexibility: a new reality of world-class manufacturing", *S.A.M. Advanced Management Journal*, Vol. 61 No. 2, pp. 11-15, available at: http://repository.ust.hk/ir/Record/1783.1-53110

Lechner, C. and Gudmundsson, S.V. (2014), "Entrepreneurial orientation, firm strategy and small firm performance", *International Small Business Journal: Researching Entrepreneurship*, Vol. 32 No. 1, pp. 36-60, doi: 10.1177/0266242612455034.

Li, J., Chen, D. and Shapiro, D.M. (2010), "Product innovations in emerging economies: the role of foreign knowledge access channels and internal efforts in Chinese firms", *Management and Organization Review*, Vol. 6 No. 2, pp. 243-266, doi: 10.1111/j.1740-8784.2009.00155.x.

Li, S., Ragu-Nathan, B., Ragu-Nathan, T.S. and Subba Rao, S. (2006), "The impact of supply chain management practices on competitive advantage and organizational performance", *Omega*, Vol. 34 No. 2, pp. 107-124, doi: 10.1016/j.omega.2004.08.002.

Lorenzo, J.R.F., Rubio, M.T.M. and Garcés, S.A. (2018), "The competitive advantage in business, capabilities and strategy. What general performance factors are found in the Spanish wine industry?", *Wine Economics and Policy*, Vol. 7 No. 2, pp. 94-108, doi: 10.1016/J.WEP.2018.04.001.

Lumpkin, G.T. and Dess, G.G. (1996), "Clarifying the entrepreneurial orientation construct and linking it to performance", *The Academy of Management Review*, Vol. 21 No. 1, pp. 135-172, doi: 10.2307/258632.

Luo, Y. and Child, J. (2015), "A composition-based view of firm growth", *Management and Organization Review*, Vol. 11 No. 3, pp. 379-411, doi: 10.1017/mor.2015.29.

McGrath, R.G. (2001), "Exploratory learning, innovative capacity, and managerial oversight", *Academy of Management Journal*, Vol. 44 No. 1, pp. 118-131, doi: 10.2307/3069340.

Madhok, A. and Marques, R. (2014), "Towards an action-based perspective on firm competitiveness", *BRQ Business Research Quarterly*, Vol. 17 No. 2, pp. 77-81, doi: 10.1016/J.BRQ.2014.03.002.

Magretta, J. (2002), "Why business models matter", *Harvard Business Review*, Vol. 80 No. 5, pp. 86-92.

Malhotra, Y. (2000), "Knowledge management for e-business performance: advancing information strategy to 'internet time'", information strategy: the executive's", *Information Strategy: The Executive's Journal*, Vol. 16 No. 4, pp. 5-16, doi: 10.1080/07438613.2000.10744620.

Malhotra, Y. (Ed.) (2001), *Knowledge Management and Business Model Innovation*, IGI Global, Hershey PA.

Mason, C. and Stark, M. (2004), "What do investors look for in a business plan?", *International Small Business Journal: Researching Entrepreneurship*, Vol. 22 No. 3, pp. 227-248, doi: 10.1177/0266242604042377.

Matejun, M. (2014), "The role of flexibility in building the competitiveness of small and medium enterprises", *Management*, Vol. 18 No. 1, pp. 154-168, doi: 10.2478/manment-2014-0012.

Matsuno, K., Mentzer, J.T. and Özsomer, A. (2002), "The effects of entrepreneurial proclivity and market orientation on business performance", *Journal of Marketing*, Vol. 66 No. 3, pp. 18-32, doi: 10.1509/jmkg.66.3.18.18507.

Mazzarol, T. and Reboud, S. (2005), "Customers as predictors of rent returns to innovation in small firms: an exploratory study", *International Journal of Entrepreneurship and Innovation Management*, Vol. 5 Nos 5/6, pp. 483-494.

Miles, R.E. and Snow, C.C. (1978), "Organizational strategy", *Structure, and Process*, McGraw-Hill, New York, NY.

Miles, R.E. and Snow, C.C. (2003), "Organizational strategy", *Structure and Process*, McGraw-Hill, New York, NY.

Miller, D. (1983), "The correlates of entrepreneurship in three types of firms", *Management Science*, Vol. 29 No. 7, pp. 770-791, doi: 10.1287/mnsc.29.7.770.

Miller, D. and Le Breton-Miller, I. (2017), "Sources of entrepreneurial courage and imagination: three perspectives, three contexts", *Entrepreneurship Theory and Practice*, Vol. 41 No. 5, pp. 667-675, doi: 10.1111/etap.12281.

Mitchell, W. (1991), "Dual clocks: entry order influences on incumbent and newcomer market share and survival when specialized assets retain their value", *Strategic Management Journal*, Vol. 12 No. 2, pp. 85-100, doi: 10.1002/smj.4250120202.

Muratovic, H. (2013), "Building competitive advantage of the company based on changing organizational culture", *Economic Review: Journal of Economics and Business*, Vol. 11 No. 1, pp. 61-76, available at: https://econpapers.repec.org/article/tuzjournl/v_3a11_3ay_3a2013_3ai_3a1_3ap_3a61-76.htm

Nakano, M. and Nguyen, P. (2012), "Board size and corporate risk taking: further evidence from Japan", *Corporate Governance: An International Review*, Vol. 20 No. 4, pp. 369-387, doi: 10.1111/j.1467-8683.2012.00924.x.

Naldi, L., Nordqvist, M., Sjöberg, K. and Wiklund, J. (2007), "Entrepreneurial orientation, risk taking, and performance in family firms", *Family Business Review*, Vol. 20 No. 1, pp. 33-47, doi: 10.1111/j.1741-6248.2007.00082.x.

Nunnally, J.C. (1967), *Psychometric Theory*, McGraw-Hill, New York, NY.

Nyberg, M. (2014), "Managing reputation as part of intellectual Capital management", *IFKAD 2014: 9th International Forum on Knowledge Asset Dynamics: Knowledge and Management Models for Sustainable Growth*, pp. 241-261.

O'Reilly, C.A., Caldwell, D.F., Chatman, J.A. and Doerr, B. (2014), "The promise and problems of organizational culture", *Group and Organization Management*, Vol. 39 No. 6, pp. 595-625, doi: 10.1177/1059601114550713.

Okangi, F.P. (2019), "The impacts of entrepreneurial orientation on the profitability growth of construction firms in tanzania", *Journal of Global Entrepreneurship Research*, Vol. 9 No. 1, pp. 1-23, doi: 10.1186/s40497-018-0143-1.

Olko, S. and Brzóska, J. (2017), "Comparative analysis and assessment for business models of steel companies' dynamics", *Metal 2017: 26th International Conference on Metallurgy and Materials*, pp. 2270-2276, available at: www.researchgate.net/publication/320809393_COMPARATIVE_ANALYSIS_AND_ASSESSMENT_FOR_BUSINESS_MODELS_OF_STEEL_COMPANIES%27_DYNAMICS

Osterwalder, A., Pigneur, Y. and Tucci, C.L. (2005), "Clarifying business models: origins, present, and future of the concept", *Communications of the Association for Information Systems*, Vol. 16, pp. 1-25, available at: https://infoscience.epfl.ch/record/63288/

Ozcelik, H., Langton, N. and Aldrich, H. (2008), "Doing well and doing good: the relationship between leadership practices that facilitate a positive emotional climate and organizational performance", *Journal of Managerial Psychology*, Vol. 23 No. 2, pp. 186-203, doi: 10.1108/02683940810850817.

Parker, S.C., Storey, D.J. and van Witteloostuijn, A. (2010), "What happens to gazelles? The importance of dynamic management strategy", *Small Business Economics*, Vol. 35 No. 2, pp. 203-226, doi: 10.1007/s11187-009-9250-2.

Peljhan, D., Sprčić, D.M. and Marc, M. (2018), "Strategy and organizational performance: the role of risk management system development", Epstein, M. Verbeeten, F. and Widener, S. (Eds), *Performance Measurement and Management Control: The Relevance of Performance Measurement and Management Control Research (Studies in Managerial and Financial Accounting)*, Emerald Publishing, Vol. 33, pp. 65-91, doi: 10.1108/S1479-351220180000033004.

Peter, J.P. (1979), "Reliability: a review of psychometric basics and recent marketing practices", *Journal of Marketing Research*, Vol. 16 No. 1, pp. 6-17, doi: 10.2307/3150868.

Peterson, R.S., Smith, D.B., Martorana, P.V. and Owens, P.D. (2003), "The impact of chief executive officer personality on top management team dynamics: one mechanism by which leadership affects organizational performance", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 795-808, doi: 10.1037/0021-9010.88.5.795.

Porter, M.E. (1985), *Competitive Advantage. Creating and Sustaining Superior Performance*, The Free Press, New York, NY.

Rahim, F.B.T. and Zainuddin, Y.B. (2019), "The impact of technological innovation capabilities on competitive advantage and firm performance in the automotive industry in Malaysia", in Ghani, S.A.C., Abdullah A.A., Sani M.S.M, Hamzah W.A.W. (Ed.), *Proceedings of the 3rd International Conference on Automotive Innovation Green Energy Vehicle*, Vol. 2059, AIP Publishing, Kuantan-Malaysia, pp. 20030-1-20030-12, doi: 10.1063/1.5085973.

Richardson, J. (2008), "The business model: an integrative framework for strategy execution", *Strategic Change*, Vol. 17 Nos 5/6, pp. 133-144, doi: 10.1002/jsc.821.

Robinson, W.T., Fornell, C. and Sullivan, M. (1992), "Are market pioneers intrinsically stronger than later entrants?", *Strategic Management Journal*, Vol. 13 No. 8, pp. 609-624, doi: 10.1002/smj.4250130804.

Ross, D.G. (2014), "Taking a chance: a formal model of how firms use risk in strategic interaction with other firms", *Academy of Management Review*, Vol. 39 No. 2, pp. 202-226, doi: 10.5465/amr.2012.0107.

Rüb, J., Bahemia, H. and Schleyer, C. (2018), "An examination of barriers to business model innovation", *2017 International Conference on Engineering, Technology and Innovation (ICE/ITMC), Funchal, 2017*, pp. 333-350, doi: 10.1109/ICE.2017.8279906.

Saeidi, S.P., Sofian, S., Saeidi, P., Saeidi, S.P. and Saaeidi, S.A. (2015), "How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction", *Journal of Business Research*, Vol. 68 No. 2, pp. 341-350, doi: 10.1016/j.jbusres.2014.06.024.

Salavou, H.E. (2015), "Competitive strategies and their shift to the future", *European Business Review*, Vol. 27 No. 1, pp. 80-99, doi: 10.1108/EBR-04-2013-0073.

Schoemaker, P.J.H., Heaton, S. and Teece, D. (2018), "Innovation, dynamic capabilities, and leadership", *California Management Review*, Vol. 61 No. 1, pp. 15-42, doi: 10.1177/0008125618790246.

Schreiber, J.B. (2017), "Update to core reporting practices in structural equation modeling", *Research in Social and Administrative Pharmacy*, Vol. 13 No. 3, pp. 634-643, doi: 10.1016/j.sapharm.2016.06.006.

Shook, C.L., Ketchen, D.J., Hult, G.T.M. and Kacmar, K.M. (2004), "An assessment of the use of structural equation modeling in strategic management research", *Strategic Management Journal*, Vol. 25 No. 4, pp. 397-404, doi: 10.1002/smj.385.

Shulman, J.M., Cox, R.A.K. and Stallkamp, T.T. (2011), "The strategic entrepreneurial growth model", *Competitiveness Review*, Vol. 21 No. 1, pp. 29-46, doi: 10.1108/10595421111106210.

Sigalas, C., Pekka Economou, V. and eorgopoulos, N.B. (2013), "Developing a measure of competitive advantage", *Journal of Strategy and Management*, Vol. 6 No. 4, pp. 320-342, doi: 10.1108/JSMA-03-2013-0015.

Singh, P.K. (2012), "Management of business processes can help an organization achieve competitive advantage", *International Management Review*, Vol. 8 No. 2, pp. 19-26.

Singh, S., Darwish, T.K. and Potočnik, K. (2016), "Measuring organizational performance: a case for subjective measures", *British Journal of Management*, Vol. 27 No. 1, pp. 214-224, doi: 10.1111/1467-8551.12126.

Slater, S.F. and Olson, E.M. (2001), "Marketing's contribution to the implementation of business strategy: an empirical analysis", *Strategic Management Journal*, Vol. 22 No. 11, pp. 1055-1067, doi: 10.1002/smj.198.

Sołoducho-Pelc, L. (2014), "Competitive advantage: the courage in formulating objectives and expansiveness of a strategy", *Procedia – Social and Behavioral Sciences*, Vol. 150, pp. 271-280, doi: 10.1016/j.sbspro.2014.09.058.

Stathakopoulos, V. (1998), "Enhancing the performance of marketing managers", *European Journal of Marketing*, Vol. 32 Nos 5/6, pp. 536-558, doi: 10.1108/03090569810216172.

Strandvik, T., Holmlund, M. and Lähteenmäki, I. (2018), "One of these days, things are going to change!' how do you make sense of market disruption?", *Business Horizons*, Vol. 61 No. 3, pp. 477-486, doi: 10.1016/j.bushor.2018.01.014.

Tabachnick, B.G. and Fidell, L.S. (2001), *Using Multivariate Statistics*, 4th ed., Allyn and Bacon, Boston.

Teece, D.J. (2010), "Business models, business strategy and innovation", *Long Range Planning*, Vol. 43 Nos 2/3, pp. 172-194, doi: 10.1016/J.LRP.2009.07.003.

Teece, D., Peteraf, M. and Leih, S. (2016), "Dynamic capabilities and organizational agility: risk, uncertainty, and strategy in the innovation economy", *California Management Review*, Vol. 58 No. 4, pp. 13-35, doi: 10.1525/cmr.2016.58.4.13.

Thekdi, S. and Aven, T. (2019), "An integrated perspective for balancing performance and risk", *Reliability Engineering and System Safety*, Vol. 190, pp. 1-9, doi: 10.1016/J.RESS.2019.106525.

Theodosiou, M., Kehagias, J. and Katsikea, E. (2012), "Strategic orientations, marketing capabilities and firm performance: an empirical investigation in the context of frontline managers in service organizations", *Industrial Marketing Management*, Vol. 41 No. 7, pp. 1058-1070, doi: 10.1016/j.indmarman.2012.01.001.

Tracey, M., Vonderembse, M.A. and Lim, J.S. (1999), "Manufacturing technology and strategy formulation: keys to enhancing competitiveness and improving performance", *Journal of Operations Management*, Vol. 17 No. 4, pp. 411-428, doi: 10.1016/S0272-6963(98)00045-X.

Traù, F. (2017), "The organisational factor and the growth of firms", *Cambridge Journal of Economics*, Vol. 41 No. 3, pp. 749-774, doi: 10.1093/cje/bev082.

Tsai, H.-F. and Luan, C.-J. (2016), "What makes firms embrace risks? a risk-taking capability perspective", *BRQ Business Research Quarterly*, Vol. 19 No. 3, pp. 219-231, doi: 10.1016/J.BRQ.2016.01.002.

Tversky, A. and Kahneman, D. (1981), "The framing of decisions and the psychology of choice", *Science*, Vol. 211 No. 4481, pp. 453-458, doi: 10.1126/science.7455683.

Vaculik, M., Lorenz, A., Roijakkers, N. and Vanhaverbeke, W. (2019), "Pulling the plug? investigating firm-level drivers of innovation project termination", *IEEE Transactions on Engineering Management*, Vol. 66 No. 2, pp. 180-192, doi: 10.1109/TEM.2018.2798922.

van Vuuren, J. and Wörgötter, N. (2013), "Market driving behaviour in organisations: antecedents and outcomes", *South African Journal of Economic and Management Sciences*, Vol. 16 No. 2, pp. 115-141, doi: 10.4102/sajems.v16i2.290.

Vij, S. and Bedi, H.S. (2016), "Are subjective business performance measures justified?", *International Journal of Productivity and Performance Management*, Vol. 65 No. 5, pp. 603-621, doi: 10.1108/IJPPM-12-2014-0196.

Vinogradova, V. (2018), "Value creation through external growth strategy: the architecture of successful performance", *Review of Quantitative Finance and Accounting*, Vol. 51 No. 3, pp. 847-882, doi: 10.1007/s11156-017-0690-5.

Volberda, H.W. and Karali, E. (2015), "Reframing the compositional capability: a resource-based view on 'a composition-based view of firm growth", *Management and Organization Review*, Vol. 11 No. 3, pp. 419-426, doi: 10.1017/mor.2015.39.

Wang, H.K. and Yen, Y.F. (2012), "An empirical exploration of corporate entrepreneurial orientation and performance in taiwanese SMEs: a perspective of multidimensional construct", *Total Quality Management and Business Excellence*, Vol. 23 Nos 9/10, pp. 1035-1044, doi: 10.1080/14783363.2012.670917.

Weber, E.U. (1997), "The utility of measuring and modeling perceived risk", Marley, A.A.J. (Ed.) *Choice, Decision, and Measurement: Essays in Honor of R. Duncan Luce*, Psychology Press,Mahwah, NJ, pp. 45-57.

Weber, E.U., Blais, A.R. and Betz, N.E. (2002), "A domain-specific risk-attitude scale: measuring risk perceptions and risk behaviors", *Journal of Behavioral Decision Making*, Vol. 15 No. 4, pp. 263-290, doi: 10.1002/bdm.414.

Wiklund, J. (1999), "The sustainability of the entrepreneurial orientation – performance relationship", *Entrepreneurship Theory and Practice*, Vol. 24 No. 1, pp. 37-48, doi: 10.1177/104225879902400103.

Wiklund, J., Patzelt, H. and Shepherd, D.A. (2009), "Building an integrative model of small business growth", *Small Business Economics*, Vol. 32 No. 4, pp. 351-374, doi: 10.1007/s11187-007-9084-8.

Wiklund, J. and Shepherd, D. (2005), "Entrepreneurial orientation and small business performance: a configurational approach", *Journal of Business Venturing*, Vol. 20 No. 1, pp. 71-91, doi: 10.1016/j.jbusvent.2004.01.001.

Williams, C. (2011), *MGMT4*, South-Western, Mason, OH.

Wiseman, R.M. and Gomez-Mejia, L.R. (1998), "A behavioral agency model of managerial risk taking", *Academy of Management Review*, Vol. 23 No. 1, pp. 133-153, doi: 10.5465/AMR.1998.192967.

Wu, H.L. (2008), "When does internal governance make firms innovative?", *Journal of Business Research*, Vol. 61 No. 2, pp. 141-153, doi: 10.1016/j.jbusres.2007.06.010.

Zahra, S.A. and Covin, J.G. (1995), "Contextual influences on the corporate entrepreneurship-performance relationship: a longitudinal analysis", *Journal of Business Venturing*, Vol. 10 No. 1, pp. 43-58, doi: 10.1016/0883-9026(94)00004-E.

Zhang, C. and Fu, P. (2020), "Overseas-returned executives and their roles in firm performance: evidence from China", *Asia-Pacific Journal of Accounting and Economics*, doi: 10.1080/16081625.2020.1754257.

Appendix

Table A1.
List of items

CA1	To gain a client, we are ready to modify/change our business model
CA2	Flexibility and high speed of response to environmental challenges are the most important competitive advantages of our company
CA3	We set new standards (technological, product, organizational, etc.) in the industry
CA4	The competitive advantage of our company is based on innovation and technology
RS	We accept risky strategies
DP	Dynamic growth is our strategic priority

Corresponding author
Joanna Radomska can be contacted at: joanna.radomska@ue.wroc.pl