

## Organizational Resilience of Family Businesses

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Organizational resilience is a complex, strategic question that still lacks a clear answer, in particular relating to whether and how it is beneficial for the competitive advantage of a family business. We define organizational resilience of a family business as a dynamic, ambidextrous capability to recover from and positively adjust to an unexpected, adverse situation. In this study, using the strategic management theoretical background, we link organizational resilience to the competitive advantage of family businesses. We test this conjecture using data from 193 Polish small and medium-sized manufacturing family businesses. Drawing on these findings, we conceptualize organizational resilience along two dimensions: community robustness and creative agility identified as a key duality of organizational resilience in the context of family businesses. Results demonstrate that ambidextrous organizational resilience is positively correlated with the competitive advantage of a family business. We discuss the contribution of the theory of ambidexterity and dynamic capabilities to the understanding of organizational resilience, as well as the implications of the latter for the creation of competitive advantage by a family.

**Keywords:** organizational resilience, competitive advantage, dynamic capabilities.

## Odporność organizacyjna przedsiębiorstw rodzinnych

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Odporność organizacyjna jest złożonym, strategicznym zjawiskiem. W szczególności, istotną kwestią jest odpowiedź na pytania, czy i w jaki sposób wpływa ona na przewagę konkurencyjną. Na potrzeby artykułu odporność organizacyjną zdefiniowano jako dynamiczną, obustronną zdolność przedsiębiorstwa do dostosowywania się do nieprzewidzianych przeciwności i regenerowania się po nich. W badaniach, wykorzystując teorię zarządzania strategicznego, założono, że odporność organizacyjna jest powiązana z przewagą konkurencyjną przedsiębiorstwa rodzinnego. Hipoteza ta została poddana badaniu na danych z 193 małych i średnich polskich przedsiębiorstw rodzinnych. W oparciu o analizę literatury skonceptualizowano odporność organizacyjną jako dynamiczną zdolność do godzenia sprzeczności pomiędzy odpornością społeczną i twórczą zwinnością. Wyniki wskazują, że obustronna odporność organizacyjna jest pozytywnie powiązana z przewagą konkurencyjną przedsiębiorstwa rodzinnego. W artykule przedyskutowano wkład teorii obustronności i dynamicznych zdolności do pojmowania odporności organizacyjnej oraz wpływ tak rozumianej odporności na osiąganie przewagi konkurencyjnej w przedsiębiorstwach rodzinnych.

**Słowa kluczowe:** odporność organizacyjna, przewaga konkurencyjna, zdolności dynamiczne.

**JEL:** D23, L25

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## 1. Introduction

Nowadays, family business researchers still face theoretical and empirical challenges stemming from intensive interpersonal relations between different stakeholders and pursuing non-financial goals not typically found in business as usual (Evert, Martin, McLeod & Payne, 2015, pp. 17–43; Reilly & Jones III, 2017, pp. 185–195; Wilson, Withmoyer, Pieper, Astrachan, Hair & Sarstedt, 2014, pp. 4–14). Nuanced insights into the complexity of dynamics due to the blurred boundaries between family and business are relatively underdeveloped. Indeed, we need both theories specific to family business and valid measurement instruments relevant to family business research.

In this article, we attempt to address the Van der Vegt, Essens, Wahlstrom, and George's (2015, pp. 971–980) call for studying the role and functioning of firms during adverse and unexpected events that threaten the viability of the organisation and whose causes are not sufficiently understood. The same applies to the need to build more general theories that can be quantitatively tested (Sutcliffe & Vogus, 2003, pp. 94–110), particularly, in small and medium-sized enterprises (Bhamra, Dani & Burnard, 2011, pp. 5375–5393).

The essential question we address in this article is: “How does organizational resilience generate competitive advantage for family firms?”. To anchor our theoretical perspective, we draw on two theories: organizational ambidexterity and dynamic capabilities theory. Our aim is, therefore, to contribute to research on organizational resilience, understood as a dynamic, ambidextrous capability, by providing and testing its influence on the competitive advantage of family businesses. We define the organizational resilience of a family business as a dynamic, ambidextrous capability to recover from and positively adjust to an unexpected and adverse situation.

In order to attain this objective, we used empirical data from 193 small and medium-sized family businesses operating in Poland. Based on our results, we have identified two contradictory and complementary dimensions of organizational resilience, namely community robustness and creative agility. We find supporting evidence that organizational resilience is an important driver of the competitive advantage of a family business.

Our paper deepens the conversation at the nexus of organizational resilience, organizational ambidexterity, dynamic capabilities, and family business. We build on these insights to advance a more comprehensive and complex approach to resilience dynamics in family firms. To wit, we argue that organizational resilience is an ambidextrous dynamic capability that allows the firm to take competitive advantage by rapidly and efficiently coping with adversity. We refer to strategic consequences borne by family businesses, which are the result of a combination of competing exploration and exploitation measures taken in the face of adversity.

There are several contributions we attempt in the paper. Thus, we extend the resilience literature by drawing on the organizational ambidexterity theory to articulate the fundamental contradiction between robustness and agility. We also intend to advance the strategic management literature by introducing ambidextrous organizational resilience as an important source of competitive advantage in the family business context.

## **2. The essence of organizational resilience**

Contemporary firms are operating in high-velocity context embodied by novel, unpredictable, ambiguous, and fast-paced environments (Eisenhardt, 1989, pp. 543–576). This observation points out the strategic importance of organizational resilience. Organizational resilience has gained acclaim as a managerial tool for effective coping with unexpected adversity.

As highlighted by Linnenluecke (2017, pp. 4–30), understanding, conceptualization and operationalization of organizational resilience (hereinafter referred to as OR) depends on the theoretical setting – organizational responses to environmental jolts, reliability as an attribute of the entire organization, employee strengths-based resilience, viability of business models, and organizing for reducing the weaknesses of the supply chain. Vogus and Sutcliffe (2003, pp. 94–110) focus on the maintenance of positive adjustment, Gittell, Cameron, Lim, and Rivas (2006, pp. 300–329) conceptualize resilience at the organizational level as the ability that organisations develop over time to bounce back or positively adjust to unexpected situations (Powley, 2009, pp. 1281–1326). Lengnick-Hall and Back (2005, pp. 738–757) explain this capacity as encompassing perceiving, avoiding, absorbing, adapting and recovering. At a team level, resilience is depicted in terms of the ability to function in the face of surprises, crises, volatile environments, changing personnel, as well as the ability to recover from such adverse events to perform reliably in the long run (Stuart & Moore, 2017, pp. 1963–1985). Furthermore, Ortiz-de-Mandojana and Bansal (2016, pp. 1615–1631) treat organizational resilience as the firms' ability to anticipate, avoid and adjust in order to cope positively with surprising situations and to continuously improve the firms' viability. More recently, Williams, Gruber, Sutcliffe, Shepherd and Zhao (2017, pp. 733–769) suggest core elements of resilience that pertain to different endowments that contribute to the firm's durability and enable it to adapt. They highlight the importance of material and financial resources, cognitive, behavioural, relational, and emotional capabilities. Hence, to deepen our understanding of the role and the influence of resilience on organizational effectiveness, we adopt the dynamic capabilities perspective which, to date, has remained virtually unexplored.

Some scholars look at organizational resilience through the lens of dynamic development. In this vein, Hamel and Valikangas (2003,

pp. 52–62) underline that resilience, or lack thereof, is not a permanent trait of an organization, but it involves continuous activity. Focus on the process perspective brings to the fore the benefits of exploring resilience as processes of making sense, of anticipation, adaptation, improvisation, and recovery in response to unexpected adversity (Williams, Gruber, Sutcliffe, Shepherd & Zhao, 2017, pp. 733–769). These processes take place before, during and after an adverse event with minimal impact on organizational effectiveness (Linnenluecke, 2017, pp. 4–30). The above authors argue that organizational resilience is both a process and a construct. A significant body of research suggest the resilience to adversity is a process (Williams & Shepherd, 2016, pp. 2069–2102). Resilient firms not only respond to adverse events, but also mitigate them before they arise (Van Der Wegt, Essens, Wahlstrom & George, 2015, pp. 971–980). Thus, we argue that a deeper understanding of organizational resilience requires taking into account the processual perspective.

Inquiries into how family firms might address adversity have been of scientific interest to many scholars. Building on the received literature, the notion of organizational resilience has a connotation with a set of interrelated organizational mechanisms. As implied in earlier discussions, firms use a wide range of organizational processes to fuel the engine of organizational resilience. In sum, prior studies have outlined a variety of mechanisms contributing to the firms' resilience and the capacity to deal with unforeseen and potentially disruptive events. Despite differences in terms of design ensuring a greater resilience of organizations, there are certain commonalities connected with the dynamic capability perspective.

Focusing on the family as a valuable strategic resource has almost two decades of tradition in the family business domain (Habbershon & Williams, 1999, pp. 1–25). Past research has also demonstrated the value of dynamic capability theory as an extension of the value-based approach. However, applying dynamic capability lens to organizational resilience research in the family context is still underestimated and under-researched. We describe resilience as a dynamic capability of an organisation that the latter brings into play when encountering unexpected environmental events and internal strains that could threaten firm survival. In the dynamic capability perspective, focus is on the ability to perform specific activities in a reliable and at least satisfactory manner (Helfat & Martin, 2015, pp. 1281–1312). Beyond enabling new insights on organizational resilience process, the dynamic capabilities perspective on strategic behaviour also allows us to arrive at a more comprehensive understanding of the strategic role of organizational resilience. Understanding organizational resilience as an ambidextrous dynamic capability is fundamental to our definition.

We hold that organizational resilience as a dynamic capability shapes the competitive advantage of a family firm in important ways. Understanding the complex linkage between resilience and competitive advantage is not

a subject of paramount concern for organization scholars. A number of studies have focused on how organizations can use dynamic capabilities to assuage tensions between exploration and exploitation logics (Smith & Tracey, 2016, pp. 455–466). The central tenet of the dynamic capabilities theory is that dynamic capabilities are a source of relatively persistent competitive advantage of the firm.

### 3. Organizational resilience and competitive advantage

The literature on dynamic capabilities has found robust support for the notion that there is positive relationship between firm dynamic capability and organizational effectiveness (Daneels, 2016; Di Stefano, Peteraf & Verona, 2014, pp. 307–327; Karna, Richter & Riesenkauff, 2016, pp. 1154–1173; Pezeshkan, Fainshmidt, Nair, Lance Frazier & Markowski, 2015, pp. 1348–1380). Ballesteros, Useem, and Wry (2017, pp. 1682–1708) extend this logic to explain how firms cope with disasters. Any environmental turbulence enhances the value of resilience (Topper & Lagadec, 2013, pp. 4–16; Zhao, Fisher, Lounsbury & Miller, 2017, pp. 93–113). Therefore, as Barton, Sutcliffe, Vogus, and DeWitt (2015, pp. 74–83) explained, contemporary organizations must function and develop in situations that may threaten their effectiveness in uncertain situations.

Other noteworthy perspectives emerge from inquiries into the resilience of non-family businesses. Building on these resilience studies, we may shed light on an under-researched organizational resilience construct in a family business setting. Studies have suggested that organizational processes constitutive of resilience influence the organization's survival and its strategic development (Meyer, 1982, pp. 515–537; Staw, Sandelands & Dutton, 1981, pp. 501–524). That effect is also implied by the ability to suppress inertia (Weick, Stuecliff & Obstfeld, 1999, pp. 81–124), innovation (Hamel & Valikangas, 2003, pp. 52–62), flexibility, speed of reaction, access to information, collaboration (Juettner & Maklan, 2011), highlighting improvisation, coordination, flexibility, and endurance (Boin, Comfort & Demchak, 2010, 1–12), using decentralized team-based, network approaches to problem solving in order to enhance learning and adaptation (Kahn, Barton & Fellows, 2013, pp. 377–396; McManaus, Seville, Vargo & Brunson, 2008, pp. 81–90), emphasizing the significance of human resource management system (Lai, Saridakis, Blackburn & Johnstone, 2016, pp. 113–131; Lengnick-Hall, Beck & Lengnick-Hall, 2011, pp. 243–255), supporting individuals movement towards autonomy and self-reliance (Williams & Shapherd, 2016), making sense of emergent issues (Carmeli, Friedman & Tishler, 2013, pp. 148–159), flexible decision-making processes (Rahmandad & Repenning, 2016, pp. 649–672), learning from mistakes, surprising events, and failures (Madsen & Dessai, 2010, pp. 451–476), successfully maintaining operations and thriving amid a fusion

of complexity and adversity (Van der Vegt, Essens, Wahlstrom & George, 2015, pp. 971–980; Weick & Sutcliffe, 2015). These works shed light on a wide range of organizational processes that have proven to be successful in building organizational resilience. Overall, the resilient firm has an array of actions available to it that it can be used in the face of powerful adversity.

No more than a few works that deal with organizational resilience in family business settings come to mind. Research highlights how employing different manufacturing strategy components drives organizational resilience (Acquaah, Amoako-Gyampah & Jayaram, 2011, pp. 5527–5544). Van Essen, Strike, Carney and Sapp (2015, pp. 167–183) highlight the positive role of family firm resilience in financial performance during economic shocks. Theoretical and empirical contributions regarding the effects of organizational resilience on competitive advantage are fragmented and sparse. Marrone (2010, pp. 911–940) has also found that building and maintaining functional working relationships enhance firm resilience. Richtnér and Löfsten (2014, pp. 137–151) emphasize relational aspects of the organizational resilience capacity. Additionally, Chrisman, Chua and Steier (2011, pp. 1107–1118) argue that social capital and social exchange are key drivers of organizational resilience resulting in a resilient organizational culture. Hawkins and Maurer (2010, pp. 1777–1793) depict how social capital facilitates access to information and, in consequence, accelerates long-term recovery. Results also indicate that an effective organizational response to adversity requires trust and network relationships (Shepherd & Williams, 2014, pp. 952–994). Particularly, relationships with stakeholders enable organisations to identify strategic events (Harrison, Bosse & Philips, 2010, pp. 58–74).

Coutu (2002, pp. 46–55) takes a step toward integrating organizational resilience with family business studies and links the qualities of resilient firms with family firms' intrinsic characteristics. As prior research indicates, family businesses are more effective than non-family firms in achieving resilience in terms of financial performance metrics (Amann & Jaussaud, 2012, pp. 203–223) because of their long-term orientation, social capital and socio-emotional wealth. Resilience is a crucial element of a reputation as a meta-source that contributes to firms' long-term survival by activating their strategic potential (Gao, Zuzul, Jones & Khanna, 2017, pp. 2147–2167). Relying on financial measures, Bauweraerts and Colot (2014, pp. 197–215) empirically demonstrate how two dimensions of organizational resilience – absorption and renewal capabilities – enable family firms to cope with crisis better than their non-family counterparts. Owing to their long-run vision, family firms invest in their strategic potential even in times of crisis (Block, Miller, Jaskiewicz & Spiegel, 2013, pp. 180–199).

Complementing the above studies, Teixeira and Werther (2013, pp. 333–342) demonstrate that the magnitude of the competitive advantage effect is contingent upon organizational resilience. Looking through the

historical lens, Carmeli and Markman (2011, pp. 322–341) underline the strategic role of resilience. As Sheffi (2005) explain, resilience enables the organisation to overcome vulnerability in order to attain a relative competitive advantage. In this vein, Gunasekaran, Rai, and Griffin (2011, pp. 5489–5509) offer a framework of enablers that integrate organizational resilience and competitive advantage. Parsons (2007) discusses organizational resilience as an important driver of competitive advantage, also in times of business-as-usual. Lengnick-Hall and Beck (2009) describe in a convincing way how organizational resilience contributes to strategic agility. Organizational resilience is manifested in financial volatility, sales growth, and survival rates (Ortiz-de-Mandojana & Bansal, 2016, pp. 1615–1631). Based on the above arguments we arrive at the following hypothesis:

*Hypothesis H1: In the family firm context, organizational resilience has a direct and positive influence on competitive advantage.*

## **4. Methodology**

### **4.1. Sample**

To test the research hypothesis and verify the devised research model, we carried out empirical research on family firms from southern Poland, specifically the Silesian Voivodeship. Presented research results on links between the organizational resilience of a family business and competitive advantage are part of a larger study. Data were collected between June and August 2017 from owners of small and medium-sized manufacturing family firms. The survey was constructed in English, then we translated the items of the original scales into Polish, and then back-translated them into English. Minor adjustments were made in the process to ensure the similarity of content between the versions. In the following step, market research company contacted by telephone 974 randomly selected small and medium-sized manufacturing family companies located in Southern Poland. Respondents declared if they were willing to participate in the research and answered four screening questions: (1) Are you an owner of a company, (2) Are you willing to participate in a study? (3) Do you consider your company as a family firm? and (4) Do you or your family own more than 50% of the company? If the respondent agreed to participate in the study and his/her answers to the four questions were positive, an interviewer with a questionnaire was sent. Next, the dataset was reviewed for incomplete responses, outliers, and uniform responses across all scale items. From the original research sample of firms that we contacted by the telephone, a total of 211 completed questionnaires were collected, of which 193 were included in the research. These procedures yielded an effective response rate of 19,4%, which is slightly lower than other similar research carried out in the Polish context (see Debicki, Van de Graaff Randolph & Sobczak, 2017, pp. 82–111).

Although organizational resilience literature clearly affirms the basic idea that all resilience dimensions matter, the construct is particularly important in small and medium-sized enterprises. Small and medium-sized firms lack resources and capabilities to positively face environmental uncertainty (Miller, 2006, pp. 379–407; Schultze et al, 2003). Moore and Manring (2009, pp. 276–282) argue that viable SMEs should be robust in the face of adversity. Nevertheless, few studies have explored the value of organizational resilience in the context of small and medium-sized firms (Aleksic, Stefanovic, Arsovski & Tadic, 2013, pp. 1238–1245; Pal, Torstensson & Mattila, 2014, pp. 410–428).

#### 4.2. Dependent variable

**Competitiveness of a family business.** To measure the competitiveness of a family business we used modified, 5-item 7-point Likert scale developed by Antoncic and Hisrich (2001) (alfa Cronbach = 0,835). Exploratory factor analysis (Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0,796; Bartlett's Test of Sphericity – Approx. Chi-Square = 368,308 with 10 degrees of freedom, significance:  $p = 0,000$ ), using principal component analysis with Varimax rotation, revealed that single component – factor explains 60,76% of variance and, considering eigenvalue criteria, we found no support for identifying other factors. All 5 items loaded to this single factor, with factor loadings varying from 0,714 to 0,825. Thus, in the following analyses, we considered competitiveness as a unidimensional, latent construct.

#### 4.3. Independent variables

**Organizational resilience.** To measure organizational resilience, we asked respondents the following question: “How do the following statements apply to your family business in the context of sensing, seizing and transforming?” In this study, we examined organizational resilience as a dynamic capability. Therefore, we transformed the original 9-items scale developed and validated by Kantur and Iseri-Say (2015, pp. 456–472) into process terms (alfa Cronbach = 0,874). With this in mind, we constructed a latent measure representing the organizational resilience of a family business.

First, we carried out explorative factor analysis using principal components analysis with Varimax rotation. Kaiser-Meyer-Olkin sample adequacy estimate equalled 0,798, and The Bartlett's test of Sphericity was significant (Chi-square equal to 1015,598, 36 degrees of freedom,  $p=0,000$ ). Following Hinkin's (1998, pp. 104–121) criteria that items should have “an appropriate loading greater than .40 and/or a loading twice as strong on the appropriate factor than on any other factor (p. 112)”, we eliminated 3 items from the original scale. The remaining 6 items created two factors. The first dimension is labelled “Community robustness”, and it is composed of 4 items (alfa Cronbach = 0,853); the second dimension composed of 2 items was named “Creative agility” (alfa Cronbach = 0,896). These two



dimensions explain 76,44% of the variance. Confirmatory factor analysis carried out in MPlus 8.0 statistical package confirms two latent factor model of organizational resilience composed of “Community robustness” (4 items) and “Creative agility” (2 items) (Root Mean Square Error of Approximation = 0,07; Compound Fit Index = 0,946; Tucker-Lewis Index = 0,939). Rotated component matrix presents items’ factor loadings (Table 1).

How the following statements apply to your family business in the context of sensing, seizing and transforming?	Component	
	Community robustness	Creative agility
8. We show resistance right till the end in order not to lose	<b>,847</b>	,165
7. We are successful in acting as a whole, together with all our employees	<b>,806</b>	,119
9. We do not give up and continue on our path	<b>,786</b>	,235
1. We stand straight and preserve our position	<b>,781</b>	,133
3. We rapidly take action	,141	<b>,904</b>
2. We successfully come up with solutions	–	<b>,890</b>

Tab. 1. Rotated component matrix for organizational resilience. Source: own elaboration.

Based on these results, we argue that the effectiveness of resilience stems from two sub-processes: community robustness and creative agility. Our results echo Teixeira and Werther’s (2013, pp. 333–342) arguments that organizational resilience as a mechanism for augmenting strategic advantage includes both reactive and proactive innovations, as well as anticipatory innovations. Neilson, Pasternack, and van Nuys (2005, pp. 82–92) complement this focus on the strategic role of organizational resilience by emphasizing the importance of creating new strategies and business models. Building organizational resilience facilitates restoring equilibrium or making improvements upon the status quo (Kahn, Burton & Fellows, 2013, pp. 377–396). In this vein, to elaborate a survey tool, Lee, Vargo and Seville (2013, pp. 29–41) conceptualize and empirically test a two-factor model that encompasses adaptive capacity and planning. Similarly, Woods and Wreathall (2008, pp. 143–158) have distinguished two types of adaptive capacity: one reflects using existing capabilities, and the other connotes the creation of new. Similarly, Ortiz-de-Mandojana and Bansal (2016, pp. 1615–1631) distinguish two organizational resilience capabilities: quickly responding to environmental changes and developing flexible resources. Makkonen, Pohjola, Olkkonen and Koponen (2014, pp. 2707–2719) explain organizational adaptive behaviour during the financial crisis in terms of renewing (explorative) and regenerating (exploitative) organizational capabilities. In addition, Kendra and Wachtendorf (2001)

describe organizational resilience through reference to reconciling stability and change. Zolli and Healy (2012) argue that resilience connotes the maintenance of the status quo and adaptation. Carmeli and Markman (2011, pp. 322–341) theoretically explained the need to reconcile the resilient firm's emphasis on growth and development with efficiency and self-management. Linnios, Mazzarol, Ghadouani, and Schilizzi (2014, pp. 104–116) have further refined this idea and argue that effective organizational resilience requires different configurations of offensive adaptation and defensive reaction, which are context-sensitive. In their “adaptability” archetype, these scholars have associated resilience with ambidexterity. A more recent contribution describes the organizational resilience from the ambidexterity perspective to consider the balance of organizational efficiency with adaptability (Turner & Kutsch, 2016), which is in line with the tradition of strategic advantage research in family business settings (Irava & Moores, 2010, pp. 131–144). Nevertheless, organizational resilience research that applies the lens offered by organizational ambidexterity theory remains emergent. All of these constructs explicitly build on the ambidextrous reconciliation of explorative and exploitative activities. Drawing on this logic and going beyond the receiving wisdom, we attest to the importance of the organizational ambidexterity perspective.

As Cantarello, Martini and Nosella (2012, pp. 28–48) note in their recent review of the field, we have yet to reach an agreement about organizational ambidexterity. Following O'Reilly and Tushman (2008, pp. 185–206), we conceptualize organizational ambidexterity as a dynamic capability of firms, reflecting simultaneous exploration and exploitation. Following previous findings of Hortinha, Lages and Lages (2011, pp. 36–58) and Benner and Tushman (2015, pp. 497–514), we conclude that organizational ambidexterity is a key driver of firm performance.

The organizational ambidexterity theory is well suited for examining the kind of organizational contradictions associated with organizational resilience. However, looking at organizational resilience through the lens of organizational ambidexterity has received only sparse attention. To be both adaptive and innovative, as well as stable and continuous, family businesses need to be ambidextrous. Organizational resilience, as such, should be recognized as a two-dimensional construct involving not only exploitative factors, but also the explorative dimension. Accordingly, we further suggest that there are two types of organizational resilience-creation processes.

More formally, we suggest the following understanding of organizational resilience: organizational resilience is the capability to reconcile robustness (as stability and continuity) and agility (innovativeness and adaptiveness) in order to successfully cope with adversity. We take on a more paradoxical perspective which portrays organizational resilience as a reconciliation process that blends different logics associated with robustness and agility. This view shifts the focus away from the unidimensional construct to

the question about ways in which family firms simultaneously engage in robustness and agility. The definition entails two important processes. The first process is associated with a continuous exploitation of the strategic potential; the second is characterized by exploration in order to develop new resource combinations and substantial capabilities. In consequence, we propose that organizational resilience is an ambidextrous capability that refers to ongoing, successful robustness and adaptation. For the purpose of our model development, we define organizational resilience as an ambidextrous dynamic capability of sensing, seizing and transforming in reconciling robustness (stability and continuity) and agility (innovativeness and adaptiveness) in order to successfully cope with adversity.

To calculate ambidextrous organizational resilience, we followed the approach suggested by Hill and Birkinshaw (2014, pp. 1899–1931) and Mihalache, Jansen, van den Bosch and Volberda (2014, pp. 128–148). In particular, we first calculated means of the items of both dimensions of organizational resilience and, further, we multiplied them. This has led to a single score allowing for the assessment of reconciliation of community robustness and creative agility in the process of coping with adversity.

#### **4.4. Control variables**

In order to preserve the analysis from the impact of exogenous factors, we used two control variables. Following previous studies (Chu, 2011) we assessed firm size on the basis of its total number of employees and we measured it on a three-point scale – (1) company employing less than 9 people; (2) company employing more than 10 and less than 49 people, and (3) company employing more than 50 people. Respondents were asked to categorize their business into one of three categories. Secondly, the age of the firm was assessed, and in this regard, respondents were asked an open-ended question about the number of years that the company had been operating in the market. The rationale for this question lies in the assumption that more established companies enjoy a better reputation, have more experienced of surviving difficult market conditions, and more opportunities to fulfil family obligations related, for example, to family ownership.

## **5. Results**

Table 2 shows the means, standard deviations, and correlations for the variables studied in the research project. Table 3 demonstrate there are small to moderate correlations between studied constructs. In particular, competitive advantage is correlated with ambidextrous organizational resilience. Firms age is positively correlated with ambidextrous organizational resilience, and firms size correlates negatively with family business corporate governance and binding social ties.

	Variables	1	2	3	4	5	6	7
1	Age	–						
2	Size	,254**	–					
3	Competitive advantage	,130	,051	1				
	Mean	17,26	1,6	4,14	24,86	5,72	4,92	4,97
	SD	14,96	0,659	0,93	9,62	1,24	1,12	1,05

Note: n = 193; \*p<0,05; \*\* p<0,01

Tab. 2. Means, standard deviations and correlations between dimensions of studied constructs and descriptive statistics (n = 193). Source: own elaboration.

To test relationships between studied variables, we used structural equation modelling in MPlus 8.0 statistical package (the general type of analysis). In Table 3 below, we present the effects of ambidextrous organizational resilience, socio-emotional wealth dimensions and control variables on the competitive advantage of the family company.

In Table 4, Model 1 shows the effects of control variables. The subsequent model depicts the effects of ambidextrous organizational resilience (Model 2). As predicted in hypothesis 1, ambidextrous organizational resilience is significantly and positively related to the competitive advantage of a family business (Model 2: B = 0,017; p<0,05; Model 4: B = 0,034; p<0,05). All two models are well fitted with root mean square error of approximation below 0,08 cut-off line, and CFI and TLI indexes above the 0,900 cut-off level.

	Model 1 (SE)	Model 2 (SE)
<b>Dependent variable: competitive advantage</b>		
Constant	0,615 (0,139)***	0,593 (0,134)***
Size	0,058 (0,097)	0,063 (0,095)
Age	0,007 (0,004)	0,005 (0,004)
Ambidextrous organizational resilience	–	0,017 (0,007)**
<b>Model fit indices</b>		
Root Mean Square Error of Approximation (RMSEA) (the lower the better)	0,045	0,058
Compound Fit Index (CFI) (the higher the better)	0,987	0,969
Tucker-Lewis Index (TLI) (the higher the better)	0,979	0,957

Note: Dependent variable is competitive advantage; SE – standard error

\* p<0,1; \*\* p<0,05; \*\*\* p<0,01

Tab. 3. Relationships between ambidextrous organizational resilience and competitive advantage. Source: own elaboration.

### **5.1. Robustness test**

To check the robustness of our research results, we carried out the Harman test. Exploratory factor analysis (KMO = 0,911, Bartlett's test of Sphericity: approximate Chi-Square = 0,5446,815 with 820 degrees of freedom and  $p = 0,000$ ) led to the conclusion that there is a small chance of common method variance in the sample while single factor (principal component analysis with no rotation) explained only 38% of the variance.

## **6. Discussion**

### **6.1. Theoretical implications**

Our study extends past resilience research that has focused mainly on the myriad antecedents of resilience effectiveness and paid limited attention to strategic aspects. Through adopting a strategic management perspective and informing our theorizing, we drew on organizational ambidexterity theory and dynamic capability theory. In this vein, we developed a construct of organizational resilience as an ambidextrous dynamic capability and suggested an assessment method.

Our research results bring support to the hypothesis. In particular, the ability to reconcile contradictions between community robustness and creative agility understood as two dimensions of organizational resilience foster the competitive advantage of the family business. Based on our conceptualization we argue that sources of strategic success, particularly competitive advantage, reveal two different logics: explorative and exploitative. The difficulty of reconciling these contradictory and complementary dimensions leads to problems with building organizational resilience and to companies' natural propensity for losing it. Thus, as evidenced by our study, the ambidexterity theory seems to offer a promising point of departure for research on organizational resilience.

### **6.2. Practical implications**

The fresh perspective on organizational resilience offered by the ambidexterity theory allows us to advance our knowledge of managerial behaviour and action that is clearly appropriate for family firms' performance. It is important to note that firms have adopted three main approaches to building organizational ambidexterity: organizational separation, temporal separation, and contextual ambidexterity. Taking a slightly less abstract view, we advocate that attaining organizational resilience is possible with three strategies. First, managers can structurally separate robustness and agility in different organizational parts. Second, significant progress may be reflected in shifting managerial attention from robustness to agility and inversely. It is also important to recognize the usefulness of organizational

context which enables and encourages employers to simultaneously engage in robust and agile behaviour.

From the practical standpoint, it is useful to consider organizational resilience as a dynamic capability of family firms. A growing body of research relates to the dynamic capability conceptualization in terms of sensing, seizing and transforming (Teece, 2007, pp. 1319–1350; Teece, Peteraf & Leith, 2016, pp. 13-35). All else being equal, mindful responsiveness to adversity requires managerial actions in these three areas. First, sensing adverse situations in order to decide on a suitable response should be incorporated into managerial practice. This entails (1) sensing unknown future and capturing values in the context of the firm's strategic direction, and (2) recognizing opportunities for creating new values together with a critical insight of the environment to identify future development trends. In regard to the second component of organizational resilience as a dynamic capability, managers should focus on seizing opportunities to intervene with the speed and effectiveness of adversity response. The overarching point is that managers should (1) mobilize strategic potential, (2) seize potentially fruitful opportunities by making decisions that enable fast and effective realization of strategic initiatives, (3) design and implement new business models, (4) satisfy expectations and needs of stakeholders and, (5) care about the attainment of strategic goals. From the practical point of view, managers should also strive to reconfigure assets in order to cope with adversity and meet any related needs. The way forward here entails the following: (1) the firm's co-evolution with the environment through resource orchestration, (2) immediately discarding resources that no longer have any strategic value for the company, (3) developing new resources required for the firm's future, (4) building partnerships with existing and new stakeholders, and (5) overcoming resistance to change.

### **6.3. Limitations and future research**

The proposed model can be further refined and validated empirically in future research. First, we applied a cross-sectional design, and therefore we cannot draw any definite conclusions on a reliable causal pattern of variables in the hypothesized relationships. Thus, it is important to note that our findings are somewhat suggestive and worthy of further empirical examination (Ylikoski & Aydinonat, 2014, pp. 19–36). In particular, future research would require a longitudinal approach.

Next, measuring organizational resilience is still subject to debate. On the basis of our findings, we argue that organizational resilience is a conjoint effect of two formative dimensions: community robustness and creative agility. However, Wicker, Filo and Cuskelly (2013, pp. 510–525) have followed Tierney (2009) measurement based on four dimensions, i.e. robustness, redundancy, resourcefulness and rapidity. Past research has also shown that the organizational resilience capacity may be evaluated in

regard to structural, cognitive, relational and emotional aspects (Richtnér & Löfsten, 2014, pp. 137–151). At the same time, Kantur and Iseri-Say (2015, pp. 456–472) emphasize three crucial elements of the measurement framework: robustness, agility, and integrity. In fact, there is no agreement on how to measure organizational resilience, which means that the topic requires further conceptual development and empirical testing.

In design terms, we encourage to study processes and events with more dependent variables. Our argument is in line with Miller, Washburn, and Glick's (2013, pp. 948–964) research and their claim that firm performance is a complex notion that contains multiple formative dimensions. Future research should examine the effects of organizational resilience on the performance of family firms in terms of objective and subjective measures related to different constructs such as growth, value creation and capture, social effectiveness, high performance, wellbeing, etc.

Our theory is limited to distinguished the different types of family firms. James, Jennings and Breitkreuz (2012, pp. 87–108) call for more research that investigates the heterogeneity in regard to family structures, values, and interaction patterns. Therefore, we encourage examining organizational resilience in different types of family businesses as a fruitful avenue for future research.

Outlining a research agenda for future activities, we concur with scholars promoting research at the intersection of different level of analysis – family, business, and individual (Dossena, 2016, pp. 107–108; Lazega & Snijders, 2016) in order to examine the relationship between organizational resilience and competitive advantage. Finally, Bettinelli, Sciascia, Randerson, and Fayolle's (2017, pp. 506–529) review of literature clearly shows that previous studies have applied diverse measures of family firm performance. We thereby argue that our one-dimensional measure of family firm performance remains somewhat underdeveloped. In future research, firm performance may be considered as a multidimensional construct.

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