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Mobilisation of survivability capital – family firm response to the coronavirus crisis

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Abstract

Purpose – Survivability capital is a unique resource resulting from the "familiness" constituting an inherent feature of family firms. Familiness represents the ability of family members to reinforce the financial and non-financial resources of businesses facing threats to their economic existence. This work proposes and examines various dimensions of the survivability capital construct, verifying whether family firms expecting deterioration of their economic situation or problems with survival due to the COVID-19 crisis can mobilise sufficient capital to survive.

Design/methodology/approach – This article provides empirical evidence based on a cross-sectional online survey of 167 Polish family firms, conducted at the beginning of the COVID-19 pandemic. The method (scale) of survivability capital measurement was elaborated and validated using principal component analysis (PCA) and confirmatory factor analyses (CFA). Next, the mobilisation of the different dimensions of survivability capital was examined using PLS-SEM modelling.

Findings – The survivability capital of family firms is composed of two dimensions: internal (based on directly involved family members) and external (based on not directly involved family members). Family firms facing crisis-induced deterioration of the economic situation engage its internal component. Subsequently, family firms forecasting decreasing probability of survival during a crisis try to engage both the internal and the external components of survivability capital. Such behaviour is in line with the resource-based view as well as with the sustainable family business theory.

Originality/value – To the best of the authors' knowledge, this is one of the first studies to examine analytically the survivability capital construct. While previous studies mentioned the existence of survivability capital, this study attempts to introduce its various dimensions and test the mobilisation of survivability capital during the COVID-19 crisis.

Keywords Family firms, Survivability capital, Resource-based theory, External shocks, Resilience capacity

Paper type Research paper

Introduction

The COVID-19 pandemic has affected family businesses twofold: as a biomedical threat to the family system and as an enterprise threat to the business system. De Massis and Rondi (2020) argue that the pandemic, with its social and economic consequences, poses significant challenges for family firms. Crises may emerge in the private context as well as in the entrepreneurial sphere. As demonstrated by Llanos-Contreras *et al.* (2019), external shocks to

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both the family and the business trigger the dramatic evolution of the family firm context, as well as of priorities and routines. The business is an integral part of a family firm's long-term sustainability, but the family is just as important (Cliff and Jennings, 2005; Zachary, 2011; Danes *et al.*, 2016). The survival and success of family firms depend on care for both the business and the family members (Danes *et al.*, 2016; Haynes *et al.*, 2019). The question is whether family firm owners will preserve their private wealth or rather activate private resources, called survivability capital, to support firms that are struggling as a consequence of the COVID-19 pandemic and its aftermath.

According to Sirmon and Hitt (2003), "survivability capital represents the pooled personal resources that family members are willing to loan, contribute, or share for the benefit of the family business" (p. 343). It is a unique resource of family firms, which distinguishes them from their non-family peers. The existence of survivability capital results from all the dimensions of socioemotional wealth (SEW) (Berrone *et al.*, 2012). As claimed by Wilson *et al.* (2013), survivability capital can determine a company's survival in difficult times, and "can therefore help explain the greater likelihood of survival among family firms compared with non-family firms" (p. 1370). Survivability capital is visible in such activities as unpaid or loaned labour, monetary support (loans, increasing equity), or support from relatives' companies (Mzid, 2017; Lins *et al.*, 2013; Zheng, 2010; Olson *et al.*, 2003; Sirmon and Hitt, 2003).

It is expected that family firms will target the preservation of SEW and that their aim of behaving responsibly towards their employees will motivate the family firm owners to mobilise their survivability capital. Within families, however, individual members may show different attitudes towards, and commitment to, the business. SEW's "influence on firm behaviour is largely a function of its importance to family members in terms of its preservation and acquisition" (Debicki *et al.*, 2016, p. 47). Some family firms have several family members managing and controlling the company while others function without operational oversight (Tagiuri and Davis, 1996; Gersick *et al.*, 1997; Anderson *et al.*, 2005; Villalonga *et al.*, 2015). It is thus recognised that different reactions of family members to the COVID-19 pandemic may occur.

To investigate family firms' responses to the COVID-19 pandemic, the study has been built on insights from the resource-based view (RBV) as well as from sustainable family business theory (SFBT). RBV takes the resources controlled by a firm into account (Barney, 1991), while SFBT additionally includes external private family resources (Stafford *et al.*, 1999). SFBT suggests that, during stable periods, families and their firms are managed within their boundaries. During periods of disruption, however, families interact with their family firms by exchanging resources across the boundaries (Haynes *et al.*, 2019; Danes *et al.*, 2016; Stafford *et al.*, 1999, 2013).

This paper provides a rigorous empirical test of whether family firms suffering the consequences of the COVID-19 crisis and expecting problems with firm survivability can mobilise their survivability capital. To support this objective, a survey of 167 Polish private family firms was conducted during the initial phase of the COVID-19 pandemic in 2020.

A limited number of existing studies have holistically examined how survivability capital works in practice. Since Sirmon and Hitt (2003) introduced the term to describe this unique family firm resource, other authors have employed it as one aspect of family firms' resilience capacity (Gomez-Mejia *et al.*, 2007; Brewton *et al.*, 2010). In a few qualitative studies, certain family firm behaviours have been explained using the survivability construct (Salvato and Melin, 2008; Zheng, 2010; Cater and Beal, 2014; Mzid, 2017). Nevertheless, minimal quantitative research has been dedicated to examining this phenomenon. The research constitutes an attempt to fill this knowledge gap, at least partly.

The article may contribute to the literature in several ways. First, the study may bolster the stream of research examining the familiness construct through studies of survivability capital by presenting its different dimensions, which have been labelled internal and external.

The paper also attempts to develop a quantitative instrument for measuring survivability capital.

Second, this article may add to the existing research by examining the manner in which family firms react to external shocks (family and business-related) threatening the firms' continuity. By examining family businesses during the COVID-19 period, the paper responds to the current scarcity of knowledge regarding effective strategies for coping with uncertainty and disruption, with the hope of improving the responses to, and plans for, future crises. The pandemic represents a general slowdown in economic activity and a radical short-term change in the structure of economic activity, which is likely to be sustained (Baker *et al.*, 2020). Moreover, the crisis has simultaneously affected families, often changing family relationships. Despite these challenges, it has been confirmed that survivability capital is activated in times of downturn. The authors discovered that when a family firm faced deterioration of its economic situation due to the COVID-19 pandemic, it used internal survivability capital. Conversely, when a family firm anticipated a lesser probability of survival, it activated both internal and external survivability capital. This work may provide support for SFBT, which underlines the fact that resources can flow between the family and the business as needed during times of disruption (Danes *et al.*, 2008, 2016; Stafford *et al.*, 1999).

The firms which respond effectively to a crisis stand a better chance of preserving their competitive advantage. Crisis conditions can provide opportunity for a natural experiment evaluating the value of family involvement in ownership and management since difficult economic conditions accentuate both the beneficial and the negative characteristics of family control.

The article is structured as follows. In the first section, the authors present a brief overview of the theoretical and empirical evidence for how family firms operate in crises. The role of survivability capital as a unique resource of the family firm is then discussed. The data collection process and the methods of variable extraction are described in the following part. Finally, the empirical results and the findings are discussed.

Literature review and hypothesis development

The 2020 shock to the world economy has been different from the 2007 global financial crisis, and more similar to the increase in uncertainty during the Great Depression of 1929–1933 (Baker *et al.*, 2020), as the lockdowns have severely hampered everything from manufacturing to services. In 2007–2009, the problem was a banking crisis which only spread to the financial and real economy in the rest of the world after a certain time delay. The COVID-19 pandemic in a short time resulted in a severe global collapse. It immediately and completely shut down the real economy, influencing supply and demand simultaneously. Businesses have been affected by these disruptions in various ways, with the crisis presenting either an opportunity or a threat to their competitiveness. The COVID-19 pandemic induced a reallocation of activities across sectors. Threats were generated by government restrictions and shutdowns, or changes in living and working conditions, which particularly affected the airline industry, tourism and retail trade. As reported by Abay *et al.* (2020), the demand for services that require face-to-face interaction contracted substantially. The pandemic also negatively affected showbusiness, sport, education and cultural activities.

In contrast, the demand for services that could be performed remotely, or which provided solutions with reduced personal interactions, increased significantly, such as the ICT sector, e-commerce and logistics. For some businesses, opportunities stemmed from the development of new products or services (e.g. masks and protective helmets), organization of work in novel ways (e.g. changes in customer service and introduction of remote work) or development of new knowledge and competencies (Eckhardt and Shane, 2003).

As Ratten (2021) remarked, the pandemic creates new opportunities for entrepreneurs and requires innovative actions on their part. In reference to enterprise size, Durst and Henschel (2021) suggested that smaller firms are more likely to gain from the pandemic, since they are flexible, agile and "used to working with uncertainty and cohesion between owners/founders and employees" (p. 22). Carletti *et al.* (2020) are of the opposite opinion, arguing that due to their limited financial resources, small businesses are characterised by low resilience and are unprepared for a prolonged state of uncertainty.

The scale of government action to contain and mitigate the effects of the pandemic was unprecedented. Despite these efforts, the COVID-19 pandemic has led to a sharp decline in the labour demand in many sectors of the economy (e.g. tourism and retail trade) and caused labour shortages in other sectors (e.g. healthcare, logistics and ICT). On one hand, the crisis exposed significant weaknesses in business operations and supply chains in relation to working conditions and disaster preparedness. On the other, it may promote changes within organisational routines, providing support for implementing new strategies and structures as well as long-term orientation. Management of companies during pandemic has required construction of an outcome based on the materials at hand rather than an attempt to achieve a particular effect. In this turbulent environment, managers of enterprises have faced many unexpected dilemmas and have been forced to make unusual decisions.

The COVID-19 crisis also poses a serious threat to family welfare due to challenges of social disruption, such as financial insecurity and the caregiving burden (Prime *et al.*, 2020). On one hand, COVID-19-related stress is likely to increase harmful behaviour (e.g. hostility, withdrawal and less responsive support), which will negatively influence the relationship quality among family members, opening possibilities for more conflict (Pietromonaco and Overall, 2021). On the other, unity has been strengthened in some families. In sum, the impact of the COVID-19 pandemic on the economic and social environment differs from previous financial disasters. For entrepreneurs and governments, one significant challenge is the lack of close historical comparisons. As the crisis was unforeseeable and highly unusual, it constitutes an example of a disruptive, non-normative natural disaster (Danes *et al.*, 2009). Natural disasters and political crises tend, however, not to be global but to occur in and threaten specific regions such as Hurricane Katrina in the region of New Orleans or the Canterbury earthquake sequence in New Zealand. Sometimes natural disasters affect specific industries, such as the automotive sector after the Japanese earthquake and tsunami in 2011 (Arto *et al.*, 2015). The COVID-19 pandemic is therefore considered to represent an acute case of a cumulative risk of widespread impact (Prime *et al.*, 2020), as both a natural disaster and a financial crisis combined into one.

An overview of the research on the response of family businesses to different external shocks (such as global or national financial crises, political crises or natural disasters) will be presented further on. The effects of the COVID-19 pandemic are believed to have influenced family firms' behaviour similarly. The impact of the COVID-19 pandemic is characterised by threat, surprise, and a short decision time, hence, as per Mikušová and Horváthová (2019), it exhibits all the common features of a real crisis. The results of initial studies on family firms' reactions to the COVID-19 pandemic are presented at the end of the section.

Family firms' responses to economic crises

The researchers analysing family firms' response to the 2008–2009 global financial crisis focused on several factors, such as growth (Arrondo-Garcia *et al.*, 2016; Amato *et al.*, 2020), capital structure (Ramalho *et al.*, 2018), employment (Lee, 2006; Bjuggren, 2015; Van Essen *et al.*, 2015), risk-taking (Arrondo-Garcia *et al.*, 2016) and governance (Braun and Latham, 2009). Studies also investigated the performance of family firms in comparison with

non-family peers (Amann and Jaussaud, 2012; Kachaner *et al.*, 2012; Siakas *et al.*, 2014; Van Essen *et al.*, 2015; Minichilli *et al.*, 2016; Arrondo-Garcia *et al.*, 2016).

Most studies have confirmed that during economically difficult times, family firms outperform non-family businesses (Amann and Jaussaud, 2012; Kachaner *et al.*, 2012; Van Essen *et al.*, 2015; Minichilli *et al.*, 2016; Arrondo-Garcia *et al.*, 2016; Hansen *et al.*, 2020). Dyer (2018), however, wonders whether all family firms outperform their non-family peers during times of crisis. For instance, Hansen *et al.* (2020) did not find such a cyclical effect when examining family firms operating in Organisation for Economic Co-operation and Development (OECD) countries. In contrast, the family firms' relative outperformance during economically difficult times has been demonstrated for Asian and non-OECD countries (Hansen *et al.*, 2020).

Better performance of family firms during crises has been shown for publicly listed companies (Minichilli *et al.*, 2016; Saleh *et al.*, 2017) as well as private family firms (Bauweraerts, 2013; Arrondo-Garcia *et al.*, 2016). Lins *et al.* (2013), however, found the opposite based on a dataset of nearly 8,500 family and non-family firms from 35 countries. The authors demonstrated that family firms underperformed, relative to other firms, during the 2008–2009 global financial crisis.

The ability of family firms to mobilise resources during and after an economic downturn might be an explanation of their stronger performance and ability to recover (Saleh *et al.*, 2017; Amato *et al.*, 2020). As a consequence of their greater ability to mobilise resources, family firms adopt long-term orientation – even during a crisis – investing more, conducting more research and development, and controlling costs better (Amann and Jaussaud, 2012; Kachaner *et al.*, 2012). Explaining the better performance of family firms, Kachaner *et al.* (2012) claimed that family firms focus more on resilience than on performance and tend to manage their downside more than their upside, as opposed to their counterparts. Testing the results of 219 private companies from 2002 to 2011, Bauweraerts (2013) showed that family firms performed better in the Belgian market. The author explained that the positive impact of family involvement on firm performance during crises results from a less formalistic view of the organisation and a concern for the preservation of socioemotional wealth. Regarding the emotional attachment to the firm examined during the crisis in Spain over the 2006–2011 period, Arrondo-Garcia *et al.* (2016) argued that first-generation private family firms performed worse, investing and borrowing more than multigenerational family firms. This finding results from the first generation's special interest in non-financial goals, particularly the firm's survival, so it can be passed to the next generation and control can be maintained (Arrondo-Garcia *et al.*, 2016).

Based on an S&P 500 dataset of non-financial firms covering 2006–2010, Zhou *et al.* (2017) obtained opposite results. The authors found that family firms outperform non-family firms during a crisis, where the firms which contributed to the outperformance were those where the founder was still present. The authors suggested that the superior performance of the founder firms may have been caused by the founders' lesser incentive to overinvest in order to boost short-term earnings during a crisis (Zhou *et al.*, 2017). Revilla *et al.* (2016) found that greater family involvement in management was negatively related to the likelihood of business failure in the context of an economic crisis. The authors explained the finding as resulting from the higher socioemotional and financial costs incurred by family members actively engaged in daily business activities.

Family firms also tend to prioritise family goals in times of crisis. This result is related to the fact that in the event of the company's collapse, family businesses incur unique costs, in terms of both financial and socioemotional wealth (Gomez-Mejia *et al.*, 2007). This conclusion may underpin the results of the survey carried out by Hirigoyen and Basly (2019) among small and medium enterprises (SMEs) in France, which demonstrated that a financial and

economic crisis does not seem to be a factor in the decision to sell a given family firm, even if its financial results have deteriorated.

Summing up, family firms appear to manage exogenous economic shocks with agility. In general, lesser reactivity to economic cycles is explained by the family firms' unique characteristics: a long-term view and the specific resources resulting from familiness (Amann and Jaussaud, 2012; Kachaner *et al.*, 2012; Bjuggren, 2015; Van Essen *et al.*, 2015). In family firms, the owning family can serve as a resource enhancer and therefore become a stress buffer (Danes *et al.*, 2009). The question is whether the familiness-related qualities of a firm contributed to the employment of private resources (survivability capital) during the pandemic, which differs from previous economic crises.

Family business behaviour after natural disasters

Opposite results may occur in cases of natural disasters because they can simultaneously constrain both the family and the business (Haynes *et al.*, 2019). Natural disasters have the potential to disrupt firm owners' routines or standard operating procedures. The demand in family and business systems tends to be high and thus the usual patterns of work/family balance may no longer be effective. Business owners may feel torn between the needs of the family or those of the business (Brewton *et al.*, 2010; Danes *et al.*, 2009) [1].

The results of Brewton *et al.* (2010) show that rural family firms' resilience can be reduced at the time of a crisis caused by a natural disaster. These findings only pertain to family farm businesses, however, which may differ from other family firms. In the case of urban family firms, Brewton *et al.* (2010) concluded that when a given business was considered a way of life, as opposed to a way of earning income, the level of resilience increased. Cater and Beal (2014) studied the experiences of the family firms affected by the biggest oil spill in Louisiana. Based on a qualitative case study approach, they listed strong network relationships, trust-based relationships, extensive local idiosyncratic knowledge, flexibility and the ability for immediate decision-making as unique characteristics of family firms, which increase their competitive advantage and enhance performance during an externally induced crisis. The results of Haynes *et al.* (2019) suggest that the small family firms affected by Hurricane Katrina, in which private issues were more frequently in conflict with work demands, were more likely to survive. The family firms that experienced greater stress and elevated family-business conflicts, however, had less chance of success.

Salvato *et al.* (2020) found that, after the earthquake in central Italy in 2009, family firms outperformed their non-family counterparts. The authors suggested that the family firms' better performance resulted from the family-related social resources and the support from political constituencies. In their opinion, the long-term perspective and the willingness to pass the company onto subsequent generations provided these firms with the social and emotional capital required to cope with the crises caused by natural disasters. Salvato *et al.* (2020) further underlined the fact that exogenous shocks, such as natural disasters, might threaten family involvement in ownership and management. Shocks may force a family-owned business to shut down or relinquish control to other firms. Thus, given the pandemic's similarity to natural disasters, the question is whether the owning families are ready to mobilise survivability capital.

Family business reactions to the COVID-19 pandemic

A growing body of research explores the family effect on the businesses' responses to pandemic threats (e.g. Amore *et al.*, 2020; Kraus *et al.*, 2020; Zainal, 2020; Zajkowski and Żukowska, 2020; Marjański and Sułkowski, 2021; Rivo-López *et al.*, 2021; Soluk *et al.*, 2021).

Based on the daily stock return data for listed companies in Italy, Amore *et al.* (2020) argued that family firms have outperformed their non-family peers during the pandemic.

The study focuses on the firms in which a family is the controlling shareholder and holds the CEO position. As surveyed by Kraus *et al.* (2020), liquidity is vital for family firms, though not all of them suffer from severe liquidity problems. Family firms' liquidity needs depend on their ability to mobilise the financial capital of the family business owners when needed (Kraus *et al.*, 2020). Such owning family's support is meant to secure investments and employment. These results are consistent with the previous research confirming the family entrepreneurs' support of their employees during a crisis (Bjuggren, 2015; Lee, 2006; Van Essen *et al.*, 2015).

Similar results obtained by Zajkowski and Żukowska (2020) and Marjański and Sułkowski (2021), indicate that most Polish family firms' owners avoid employment redundancy. Yet, as pointed out by Kraus *et al.* (2020), mobilisation of family resources to support family business does not necessarily occur in all family firms. It should be noted that Kraus *et al.*'s study was conducted at the beginning of the pandemic, on a sample of only 27 family firms from five countries. The results obtained by Zajkowski and Żukowska (2020) showed that family firm owners in Poland chose neutral or persevering strategies to minimise the consequences of the COVID-19 pandemic in the first days of the downturn.

Family members and survivability capital

Concerning the family firms' resilience, the extensive literature underlines their unique resources and specific strategic capabilities, which differentiates them from non-family firms (Lee, 2006; Brewton *et al.*, 2010; Chrisman *et al.*, 2011; Bauweraerts, 2013; Minichilli *et al.*, 2016; Arrondo-Garcia *et al.*, 2016; Saleh *et al.*, 2017; Amato *et al.*, 2020). To gain better insights into the resources contributing to the resilience of family firms, this study is based on RBV and SFBT.

RBV states that better firm performance that is not attributable to an industry or the economic conditions is commonly based on the competitive advantage of a company. Furthermore, RBV indicates how resources can contribute to the competitive advantage of organisations. The theory asserts that opportunities for competitive advantage and superior performance result from the idiosyncratic, the immobile, the inimitable and sometimes the intangible resources controlled by a firm (Barney, 1991; Peteraf, 1993). Barney (1991) recognised all assets, capabilities, organisational processes, firm attributes, information, knowledge and other elements controlled by a firm as resources. They include a broad range of organizational, social and individual phenomena within firms (Habbershon *et al.*, 2003). In family firms, these resources are associated with three independent but overlapping subsystems: business, ownership, and family (Tagiuri and Davis, 1996; Gersick *et al.*, 1997). The family subsystem differentiates family firms from their non-family peers (Chua *et al.*, 1999; Chrisman *et al.*, 2003). The idiosyncratic bundle of resources and capabilities resulting from the interaction between the family, its members, and the business are referred to as the "familiness" (Habbershon and Williams, 1999). An individual family member in a family firm system may be placed within one of the sectors formed by the three overlapping circles (Tagiuri and Davis, 1996; Gersick *et al.*, 1997). Family members who belong to the three subsystems are family-owner employees (founder-owner who is active in the firm's operation). Family members who occupy the subsystem ownership and the family are family owners (e.g.: co-owner – spouse of the founder who is not active in the firm's operations). Family members representing the family and the business subsystem are family employees (e.g. a child or relative who is active in the firm's operation without holding any shares) (Tagiuri and Davis, 1996; Gersick *et al.*, 1997). These three groups of family members are directly involved in the family firm activities (in the study referred to as directly involved family members). They are not only linked to the family firm economically, through employment and ownership, but they are also emotionally attached, with a strong desire to

contribute positively to the organizational outcomes. They are the family members who can derive both financial and nonfinancial benefits from the firm.

A group of family members who are neither the owners nor employees also exists in family firms (Tagiuri and Davis, 1996; Gersick *et al.*, 1997; Danes *et al.*, 2008). This group can be represented by the children not yet engaged in family firm operations, older generations who have already resigned, as well as close and distant relatives not engaged in the business. They are not directly involved family members but more or less emotionally attached to the business. Although they do not represent the formal family link to the business, either through employment or ownership, nevertheless they constitute an important part of the family firm system (Anderson *et al.*, 2005).

All these characteristics and the coalitions dominant inside a family firm may affect the family's willingness to activate private resources to support the business. Each of the interest groups identified has its own goals, concerns and dynamics. They also differ in terms of the importance they place on SEW. Each group of family members has a different basis for its commitment to the family firm, which might not always be aligned (Dunn, 1999; Villalonga *et al.*, 2015; Revilla *et al.*, 2016). When functioning in a family subsystem, people value family ties and relationships, whereas for the owners the goal entails high returns and the firms' success (von Schlippe and Frank, 2013). Some family firm resources held by the family and its members may be mobilised at a different level, regardless of the group to which they belong. Haynes *et al.* (1999), for example, pointed out that the use of family resources is more probable in sole proprietorships by older owners without children in the household or if a given business owes money to financial institutions.

Habbershon *et al.* (2003) suggested that "family companies may have numerous intuitive based resources not accounted for in the everyday assessment of their competitive advantage" (p. 12). These causally ambiguous resources only appear during periods of change (Habbershon *et al.*, 2003). This could mean that some of the resources residing in one of the subsystems (business, ownership and family) appear to be "dormant resources" similar to "dormant stakeholders" (Mitchell *et al.*, 1997). "Dormant resources", just as "dormant stakeholders", have little or no interaction with the firm in day-to-day operations; nevertheless, the dynamic nature of their relationship with the family firm can make them more salient if they become critical to the family firm's functioning (Mitchell *et al.*, 1997; Craig and Moores, 2010). It is believed that "dormant resources" can only be mobilised in hard times or to make strategic decisions. This assumption seems to be in line with SFBT. The unique contribution of SFBT is that it recognises the fact that the standard operating procedures used in normal, stable times need to be adapted during times of change. In stable times, the family and the company are managed within their boundaries. In times of disruption, resources flow as needed between the family and the business systems (Stafford *et al.*, 1999; Danes and Brewton, 2012; Danes *et al.*, 2016). It may therefore be assumed that some of these resources were "dormant" in stable times until disruption, similar to certain family network ties recognized by Jack (2005). Resources arise from the family's environment and from within the family itself (Stafford *et al.*, 1999; Danes and Brewton, 2012; Danes *et al.*, 2016). They help family firms to sustain the business, especially under adverse or unusual circumstances. Under "normal" conditions of business functioning, these resources constitute a sort of invisible and virtual asset. They are employed occasionally, as a tool supporting the business processes, only engaged to protect sustainable growth and the probability of business survival (Yilmazer and Schrank, 2006; Glover, 2010; McDonald and Marshall, 2018).

The unique resources of family firms have been referred to as "familiness", while survivability capital is one of these resources (Sirmon and Hitt, 2003). As suggested by Sirmon and Hitt (2003), to produce value, resources must be managed appropriately, because not all firm resources provide a competitive advantage (Barney, 1991). Weismeier-Sammer *et al.* (2013) maintain that, if groups of resources are combined with strong family cohesion

and high communicative capabilities among the employees and family members, familiness can develop in a positive manner. If trust, norms, obligations, and identity are strong and oriented at the collective, family members are more committed to each other and more likely to form an entrepreneurial team (Cruz *et al.*, 2013), thus more likely to mobilise the "dormant resources". Familiness is not without a dark side, however. Some families are characterized by competition, nepotism, and destructive behaviour (Schulze *et al.*, 2003).

This study focuses on survivability capital, which is defined by Sirmon and Hitt (2003) as "the personal resources that family members are willing to loan, contribute or share for the benefit of the family business" (p. 343). In their assumptions, however, Sirmon and Hitt (2003) have not distinguished between family members directly and not directly involved in the family firm. Following the assumptions of SFBT (Danes *et al.*, 2008), in the research presented, family members have been divided into two groups.

Survivability capital seems not to be attributed to company size, location, industry or economic conditions. It may take the form of unpaid family labour, a cut in pay during times of difficulties, additional equity investments, monetary loans, and more (Haynes *et al.*, 1999; Olson *et al.*, 2003; Mzid, 2017). Survivability capital is unique for any given enterprise and family, therefore impossible to imitate. It represents the family members' ability to strengthen the financial and non-financial resources of the businesses facing threats to their economic existence (Haynes *et al.*, 1999; Olson *et al.*, 2003; Sirmon and Hitt, 2003; Van Auken and Werbel, 2006; Saleh *et al.*, 2017; Neubaum and Voordeckers, 2018; Amato *et al.*, 2020). The method of survivability capital management for the benefit of an enterprise is also characteristic of a given family firm and contributes to the firm's competitive advantage.

Although researchers have mentioned the existence of survivability capital (Carney, 2005; Sciascia and Mazzola, 2008; Brewton *et al.*, 2010; Memili *et al.*, 2013; Wilson *et al.*, 2013; Arrondo-Garcia *et al.*, 2016), they have rarely investigated the circumstances under which it is mobilised, nor have they measured its influence on firm performance. Examination of the circumstances in which survivability capital is mobilised seems to be of importance since the identification of its activation impulses can constitute the basis for explaining the greater likelihood of survival and the better financial performance of family firms compared to non-family firms after external shocks (Amann and Jaussaud, 2012; Kachaner *et al.*, 2012; Wilson *et al.*, 2013; Van Essen *et al.*, 2015; Minichilli *et al.*, 2016; Arrondo-Garcia *et al.*, 2016; Hansen *et al.*, 2020). Of course, not all family businesses possess survivability capital (Sirmon and Hitt, 2003) and the degree of family commitment to a business varies across families (Van Auken and Werbel, 2006).

To conclude, it is proposed that survivability capital constitutes a type of a "dormant resource" within RBV. In line with SFBT, family firms can access external, privately owned family resources from the family system when needed, since family and business interact by exchanging resources across their boundaries during times of change or shock (Stafford *et al.*, 1999; Danes and Brewton, 2012; Danes *et al.*, 2016). If a given family firm does not require "dormant resource" reactivation and manifestation, these resources remain latent and dormant as certain family network ties (Jack, 2005). Survivability capital might also be labelled as a type of "effectual resource", with the ability to turn an unexpected situation into a profitable one. This effectual resource also seems to be considered by family members as an affordable loss (acceptable risk) incurred to the benefit of the family firm (Sarasvathy, 2001; Barrett and Moores, 2012).

It could therefore be assumed that the importance of this source of "family business support" gains momentum in a crisis period. Shocks that affect family firms and their economic stability trigger the need to "engage" their survivability capital. These shocks can be family- or business-related and may be caused by declining performance or emergence of problems with survival. As Casillas *et al.* (2019) suggested, deterioration of economic situations and survival problems are two different concepts. Both situations are correlated in

the long run but not necessarily in the short term. Crisis-induced deterioration of the economic situation is associated with a decline in turnover and profits or with cash flow problems, whereas problems with survival are associated with both poor financial results and the possibility of losing SEW. Correspondingly, it seems worth distinguishing the two manners of reacting to both phenomena, depending on whether or not a firm's survival is threatened, given that the firms' long-term orientation and the owners' desire to transfer the wealth to future generations constitute fundamental objectives of family firms (Chua *et al.*, 1999; Lumpkin and Brigham, 2011; Basco, 2017), whereas any damage to SEW is a critical and major loss for a family firm (Gomez-Mejia *et al.*, 2007).

The COVID-19 crisis has had an impact on both the condition of the family (health) and the firm (demand and supply chains). Considering the related financial needs of both these systems, the authors are aware that the amount of survivability capital activated during the pandemic may be lower than in typical financial crises, such as the 2008–2009 global financial crisis. What is more, the different components of survivability capital will probably be influenced by other determinants, which in turn may reduce or enlarge the potential level of the survivability capital mobilised. For example, an epidemiological situation in the family or the firm, or the psychological attitudes towards a threatening situation (such as fear of disease) may impose or limit additional unpaid working hours on the part of family members. The same impact on this component of survivability capital may affect the family life cycle (e.g. the need to care for children or the elderly). The family members' financial wealth can strengthen or shatter the survivability capital available in the form of additional equity investments, monetary loans or pay cuts for family members. Considering family firms' characteristics such as a long-term perspective and emotional attachment (Gómez-Mejía *et al.*, 2007; Lumpkin and Brigham, 2011; Basco, 2017), it seems that families will attempt to mobilise as much survivability capital as they can, even during the time of the COVID-19 crisis. It thus seems that when family members predict a crisis-induced deterioration of the economic situation to be normalized in the short term, resources that are readily available and can be mobilised immediately will be involved. Furthermore, Olson *et al.* (2003) determined that family business' success depends on family processes and the response to disruptions, which were observed to have a greater impact on family business revenues (20% of variance) than on family resources (2% of variance).

In line with the above concepts, it is assumed that some facets of survivability capital (e.g. unpaid work, use of private assets, securing a new loan with private assets, or providing monetary support) may be provided by directly involved family members. Further in the paper, we describe it as internal survivability capital.

The authors posit that:

H1a. Crisis-induced deterioration of the economic situation triggers family members to mobilise internal survivability capital.

SFBT recognizes that family and business exchange resources and capital, including the resources of family members not directly involved in the business (Danes *et al.*, 2008). Although the aid provided by family members who are not directly involved in the business is especially important at the start-up stage, indirectly involved family members often provide a range of assistance to entrepreneurs in subsequent years. The rapidity of their help and its low or non-existent cost is vital (Anderson *et al.*, 2005). As Anderson *et al.* (2005) concluded, more than two-thirds of the family members to whom entrepreneurs turned for help were not involved in a given business. They can offer a range of important resources to entrepreneurs, both professional and effective. Glover's (2010) findings suggested that family networks constitute an important source of support during difficult times. Olson *et al.* (2003) also pointed out that the external family resources mobilised due to disruptions impacted the

business revenue. Mzid (2017) concluded that family firms can overcome crisis-induced financial constraints through family support.

Summing up, mobilisation of the survivability capital held by family members not involved in the business can constitute the means of extending the family firm and familiness boundaries as well as provide benefits from a broad range of family networks (Wilson and Tonner, 2020). The survivability capital derived from this group of family members is defined further in the paper as external survivability capital.

Accordingly, the authors posit that:

H1b. Crisis-induced deterioration of the economic situation triggers family members to mobilise external survivability capital.

As mentioned above, Kachaner *et al.* (2012) argued that family firms focus more on resilience rather than on performance. Thus, family firms can react differently in crisis-induced deterioration of the economic situation and when they expect problems with their survival. When the decline of financial performance is strong enough to threaten a firm's survival, firm longevity is under threat. A decreasing probability of survival prevents the family firm from being passed on to the next generations, which is why family members will likely take actions to ensure firm survival (Wilson *et al.*, 2013). Problems with survival may result in unique costs for families and family firms, associated with both financial wealth and SEW (Gomez-Mejia *et al.*, 2007; Revilla *et al.*, 2016). "Business failure is more than a professional failure for family businesses; it is, to a certain extent, a family failure which affects its internal and external reputation" (Casillas *et al.*, 2019, p. 63).

Responses to problems with survival may depend on the nature of the family members' participation in the business. When they actively participate in management and ownership, their reaction can be stronger and quicker than that of the family members who are not involved in the family firm. This behaviour is explained by the higher socioemotional and financial costs incurred by directly involved family members (Revilla *et al.*, 2016). For directly involved family members, the financial condition of the household and the business are closely related, meaning that achievement of a given family's welfare is impossible without achievement of security and prosperity in the business (Danes and Brewton, 2012). It appears that during difficult times families are pressed to mobilise private assets and external financial resources, providing the company with survivability capital. Directly involved family members can additionally ask older generations and close or distant relatives who are not directly involved in the family firm for some sort of support. Due to the blood ties and family relationships, the above-mentioned relatives may get involved and help a given family firm through a loan, unpaid work, and so on. Problems with a family firm's survival can have adverse implications on its reputation, which affects the entire family, not only the directly involved family members (DeTienne and Chirico, 2013). The not involved family members' willingness to support a family firm can result from the desire to preserve its good reputation. Very often a given family firm's brand is linked with the family name and any reputational damage can blemish the entire family, its social status, and interests (Mzid, 2017; Alrubaishi, 2020). When a given family's name is linked to the firm's name, family members exhibit a stronger commitment to the family firm, because all family members, both those directly involved and not directly involved, are aware that it is not possible to change the family if the family name is so to speak soiled (Dyer and Whetten, 2006; Sageder *et al.*, 2018). Different family members can own and run multiple family firms simultaneously. In such a situation, one family firm's problems with survival can damage not only the reputation of that family firm but of the entire portfolio of firms within a given family system (Jenkins and McKelvie, 2016). Moreover, the relatives not directly involved in the family firm can sometimes act as informal investors. In case of a given family firm's failure, its financial problems can extend to those members (Jenkins and McKelvie, 2016). In this context, the authors claim that if family

members suspect problems with survival, they try to use all the resources available, as per the "all hands on deck!" rule.

Based on this discussion, the authors hypothesise that:

H2a. A decreasing probability of a family firm survival triggers family members to mobilise internal survivability capital.

H2b. A decreasing probability of a family firm survival triggers family members to mobilise external survivability capital.

Methodology

Data collection

The authors conducted a cross-sectional study on a sample of Polish private family firms. The Polish economy is in many areas comparable to countries with stable market economies. The enterprise sector generates nearly 72.7% of the Polish GDP, and the SME sector generates nearly half (49.1%) of that, creating 67.4% of total employment in the enterprise sector (PARP, 2021). According to World Bank data, during the years 1990–2019, Poland achieved one of the highest rates of growth of GDP per capita out of all OECD and European countries (https://data.worldbank.org). During that period, GDP per capita increased by almost 807%, from $1,731 (1990) to $15,695 (2019) (https://data.worldbank.org). Nevertheless, the GDP per capita in Poland is still much lower on average than in the European Union or the United States.

Most private businesses in Poland were established in 1990 or later. This means that most family firms have a rather short market experience compared to, for example, the Anglo-Saxon countries. The average age of a Polish family firm is only 21 years (Pernsteiner and Węcławski, 2016), whereas in the United States an average private family firm has been in operation for 49 years (Schulze *et al.*, 2003). The consequence is that most family firms in Poland are still managed and owned by their founders (Kowalewski *et al.*, 2010; Pernsteiner and Węcławski, 2016; Dick *et al.*, 2021). Węcławski and Żukowska (2019) describe them as beginners "who seek good succession patterns and good practices in transferring family business value" (p. 134).

Primary data were collected from 14 April to 6 May 2020 via mail surveys. In Poland, this period represents the business restrictions and closures implemented to minimise the risk of COVID-19 transmission. The Great Lockdown in Poland started on 24 March 2020. From that point, the most severe restrictions were announced: nonessential travel was prohibited and many businesses were closed. To alleviate the adverse effects of the lockdown, the Polish government implemented an economic support programme in the form of the Anti-Crisis Shield. The scope of the support changed dynamically, thus two versions of the Anti-Crisis Shield were implemented during the research period. In addition, during the research process, an initial defrosting plan was announced (Figure 1).

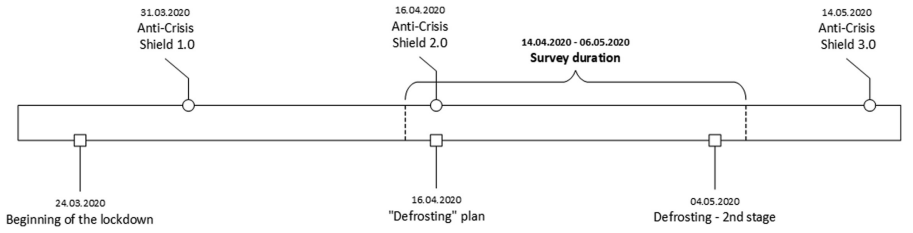


Figure 1.
Timeline of COVID-19 in Poland

These rapidly changing circumstances were challenging for the Polish family firms. They had to stay current with unstable policies and quickly adapt their businesses to new standards. The authors consider this period as a suitable setting for testing whether families use their private resources to support their businesses and for examining the way family firm survivability capital is mobilised.

The research was addressed to owners and managers of private family firms in Poland. A list of 8,428 potential respondents, with their contact details, was developed by searching the media, national registers, and checking the family firms forums, foundations and websites (there is no official dataset of family firms in Poland). A similar approach was used by Machek *et al.* (2015) and Madison *et al.* (2018). After initial and follow-up mailings, 272 surveys were completed, which resulted in an initial response rate of 3.2%.

Because of the difficulty with precise identification of family firms *a priori*, they were examined *ex post*. The subject literature contains numerous definitions of family firm (Hernández-Linares *et al.*, 2018; Hernández-Perlines *et al.*, 2020). The definition chosen for this research is based on self-defining. In the authors' opinion, this approach is the most suitable for examining the family firms' unique resources and their idiosyncratic crisis responses. This approach is based on the well-known Thomas theorem, which is defined as follows: "If men define situations as real, they are real in their consequences" (Bornmann and Marx, 2020, p. 554). It can be assumed that if an owner or manager declares that his/her firm is a family firm, then all the consequences (including the creation of and access to unique resources) are the real output of this situation. This criterion has been used in previous studies (e.g. Gallo *et al.*, 2004; Zellweger *et al.*, 2012). It should be highlighted that the use of this sample limits the extent to which the results can be generalized (e.g. they cannot be applied to family firms that do not consider themselves family firms). Nevertheless, in this case, the authors believe that it makes the results more conceptually aligned with the aim of the paper.

In total, 167 completed online questionnaires were received from family firm managers and owners. This low response rate partially resulted from the ongoing COVID-19 crisis (the authors received 100 automatic responses with information that a given firm was temporarily closed, or the manager/owner was absent due to childcare leave). Due to the low response rate, analysis was conducted to check for potential non-response bias (Hudson *et al.*, 2004). The data was split into two groups: early and late respondents. Independent sample *t*-tests were conducted to compare the means of the variables used in the research. No significant differences between the variables analysed were found, therefore, non-response bias did not occur in the research presented.

The sample's common method bias was checked twofold. The first was Harman's one-factor test. The total variance extracted was 40.78%, which is lower than the maximum threshold of 50% (Riley *et al.*, 2018). The second followed Knock (2015). If all the VIFs resulting from a full collinearity test are equal to or lower than 3.3, the model can be considered free of common method bias.

Additionally, due to the small sample size, potential sample bias was examined (Madison *et al.*, 2018). The characteristics of the research sample were compared with a population of all small and medium enterprises from *Statistics Poland* and with a sample of 396 family firms used by Pernsteiner and Węcławski (2016). Because different characteristics were presented in these studies, a complete comparison could not be provided. Based on the data presented in Table 1, however, it can be assumed that the research sample is similar to the population of businesses used by Pernsteiner and Węcławski (2016). Hence, sample bias did not occur in the research presented (Table 1).

The size of the data set is adequate considering the methods used in the paper. As per recommendations, the sample size is greater than (1) ten times the largest number of the survey items subjected to factor analysis (Jung and Marron, 2009); (2) a reasonable sample size for CFA analysis, which is 150 (Muthén and Muthén, 2002); and (3) ten times the largest number of the

	Statistics Poland (activity of non-financial enterprises in 2019 - data for small and medium enterprises)	Pernsteiner and Węcławski (2016)	Current study
Revenues (thousand PLN)	24801.75		37831.19
Employment	38.52		43.74
Age		21.00	23.64
Sector			
Production (without building industry)	0.31	0.43	0.44
Retail	0.26	n/a	0.28
Other	0.43	n/a	0.58
Generation of owners			
Founder-owned		0.68	0.48
Second		0.31	0.47
Third or next		0.01	0.05

Note(s): Response percentages in the current study do not add up to 1.00 as respondents were able to indicate more than one sector
Source(s): The Author's own elaboration

Table 1. Representativeness across samples

structural model paths directed at a particular construct in the structural model (recommendation for PLS-SEM analysis) (Hair *et al.*, 2014). The sample was dominated by small and medium enterprises, with an average employment of 44 people and average revenues of 37.8 million PLN. The average age of the firms was 23.64 years. More than a half (54.1%) were managed by the second generation, only 5.9% by the third, and 0.5% by the fourth. However, 47.3% of examined businesses were owned by founders, with 46.7% in the hands of the second and only 6% of the third generation. These characteristics are typical of the Polish family firms sector, which has a relatively short market experience (as mentioned above).

Dependent variables – measuring the survivability capital construct

As the literature shows, the family business field requires its own tools to recognise its uniqueness. For mainstream family business research to advance, proper measurement of the constructs is essential, hence the development of specific models and scales dedicated to measuring the idiosyncratic constructs in family firms (Astrachan *et al.*, 2002; Habbershon *et al.*, 2003; Klein *et al.*, 2005; Berrone *et al.*, 2012; Debicki *et al.*, 2016; Frank *et al.*, 2017). The review of the existing literature seems not to reveal a scale for examining survivability capital as a separate construct. Sustainability capital is also not included in the family influence familiness scale (FIFS) (Frank *et al.*, 2017), although it is considered as a resource based on familiness. Due to the unique opportunities resulting from the ongoing crisis, the authors decided to develop their own measurement scale called the "mobilisation of survivability capital construct". This scale attempts to complement the concept of familiness and improve the general understanding of family firms as unique entities. The set of items examined was generated following a deductive approach (applying Sirmon and Hitt's (2003) definition and fragmentary studies).

Unpaid or loaned labour of family member workers. This phenomenon is quite common in family firms; however, it is still not well-recognised in the family firm literature. As Olson *et al.* (2003) revealed, in the United States in 1996, 21.6 million family members worked in their businesses without pay. In their research, the authors revealed that "family help in business" (without pay) during busy times constituted a significant variable in the model explaining family firm income (was negatively associated). This factor was therefore introduced to the

scale ("family members will work without pay" and "family members will agree to hold off their remuneration").

Family monetary support. Olson *et al.* (2003) presented data showing that family members risked their family assets to secure business loans from financial institutions or to support their businesses. They revealed that the use of family income for business was negatively associated with family firm income and had a positive impact on the functional integrity of families. On this basis, it can be assumed that this type of support might be especially generous when a family firm is facing financial problems, but it can be activated only if a sense of trust and altruism exist in the family. The authors decided to introduce adequate variables in the scale examining the probability of family monetary support: "family members will secure a new loan with private assets", "family members will provide monetary support (loans, recapitalisation)".

Sharing private, non-monetary assets with family firms. Nonetheless, if tangible assets in the form of family private money can be shared with the business, such assets as property and equipment can also be considered (Yilmazer and Schrank, 2010). Consequently, the variables examining the probability of sharing private assets with family firms (i.e. family members actively involved in the business would activate their private assets to support business functioning) were introduced into the scale.

Support from the relatives' companies. This facet of survivability capital was presented by Zheng (2010). Family business groups may create internal capital markets which serve as "second-best substitutions for weak market institutions", especially during external crises (Ang *et al.*, 2014, p. 12). Such internal capital markets allow business groups to use crises to gain long-term competitive advantage, but only if the competitors face chronic financial friction (Ang *et al.*, 2014). Independent firms owned by single families might support each other with loans, in the event of cash-flow issues (Buchuk *et al.*, 2014), or incubate difficult-to-finance projects (Masulis *et al.*, 2020). The support from the relatives' companies, in the form of loans to related companies, seems to be engaged more frequently among family firms than among non-family firms, as demonstrated by Jara *et al.* (2018) in the example of the Chilean market. The propensity of such support during a crisis was another variable introduced into the scale.

The adequacy and relevance of the variables proposed were initially tested by expert consultancy [2]. Ultimately, 10 variables representing different facets of survivability capital were introduced (Table 2). A five-point scale was used to measure the likelihood of events that, according to the existing literature, describe survivability capital. The authors decided to ask about the actions taken by both types of individuals: family members directly involved in family firms and those not directly involved in family firms. Objective categories of this involvement were not included in the questionnaire, as the authors again followed the Thomas theorem. On the scale, 1 stands for "extremely unlikely" and 5 for "extremely likely" (Vagias, 2006). The respondents could also choose the "not applicable" option (in subsequent analyses, "not applicable" responses were treated as missing values). The Cronbach's alpha was 0.91, which suggests a high internal consistency of the scale.

To validate the different dimensions of the survivability capital construct and to avoid the problem of highly correlated independent variables, exploratory factor analysis was conducted in the next step, more specifically a principal component analysis. As shown in Table 3, two factors (D1–D2) were obtained. The appropriateness of the factor structure was evaluated using the Kaiser–Mayer Olkin (KMO) test and the Bartlett test of sphericity. The KMO value should be 0.5 at minimum (Kaiser, 1974), while the Bartlett test should be significant (Jackson, 1993). Both conditions have been fulfilled. All items had communalities exceeding the recommended cut-off value of 0.50 (Hair *et al.*, 2014). The two-factor model obtained accounted for 72.61% of the variance. The variables creating these two factors suggest that two dimensions of survivability capital mobilisation can be indicated: (D1) the

	Mean	Standard deviation	*N*
Family members involved in FF will work without pay	3.13	1.608	120
Family members involved in FF will agree to hold off their remuneration	3.65	1.523	114
Family members involved in FF will activate their private assets to support its functioning (a car, flat etc.)	3.54	1.611	111
Family members involved in FF will secure a new loan with private assets	2.67	1.631	106
Family members involved in FF will provide monetary support (loans, recapitalisation)	3.13	1.577	118
Family members not involved in FF will engage in its functioning (free support for operational activity)	2.30	1.445	112
Family members not involved in FF will activate their private assets to support it functioning (a car, flat etc.)	1.94	1.270	108
Family members not involved in FF will secure a new loan with private assets	1.62	0.987	107
Family members not involved in FF will provide monetary support (loans, recapitalisation)	1.82	1.205	110
Family firms run by different family members will support each other	2.58	1.564	102

Note(s): FF = family firms
Source(s): The Author's own elaboration

Table 2. Analysed facets of survivability capital – descriptive statistics

Survivability capital items	Factor D1	Factor D2
Family members involved in FF will work without pay	*0.805*	0.106
Family members involved in FF will agree to hold off their remuneration	*0.855*	0.150
Family members involved in FF will activate their private assets to support its functioning (a car, flat etc.)	*0.849*	0.350
Family members involved in FF will secure a new loan with private assets	*0.754*	0.272
Family members involved in FF will provide monetary support (loans, recapitalisation)	*0.812*	0.165
Family members not involved in FF will engage in its functioning (free support for operational activity)	0.259	*0.679*
Family members not involved in FF will activate their private assets to support it functioning (a car, flat etc.)	0.260	*0.841*
Family members not involved in FF will secure a new loan with private assets	0.140	*0.864*
Family members not involved in FF will provide monetary support (loans, recapitalisation)	0.143	*0.888*
Family firms run by different family members will support each other	0.031	*0.728*
Accumulated percentage of variance explained	37.429	72.609
KMO Index	0.831	
Bartlett's significance test of sphericity	0.000	

Note(s): FF = family firm
Source(s): The Author's own elaboration

Table 3. Factor loadings for varimax-rotated two-factor model

actions undertaken by family members who are directly involved in day-to-day business operation processes, and (D2) the actions undertaken by family members who are not directly involved in day-to-day business operation processes.

To demonstrate the relevance of the measurement of the ten-tem, two-dimensional scale, confirmatory factor analysis (CFA) was carried out. The initial model exhibits an adequate and acceptable fit, ($\chi^2 = 169.52, p < 0.001$, df = 34; RMSEA = 0.041 (0.032–0.05); CFI = 0.927; TLI = 0.903). It is recommended that RMSEA should be below 0.1 (Browne and Cudeck, 1992), while CFI and TLI should be above 0.9 (Hu and Bentler, 1999). In STATA software, SRMR is not reported, due to missing values.

In further analysis, D1 was labelled as "mobilisation of internal survivability capital" and D2 as "mobilisation of external survivability capital". Both variables were taken as latent constructs and serve as dependent variables in the model presented next.

Independent variables

To verify Hypothesis 1, a single independent variable ("crisis-induced deterioration of the economic situation") was operationalised. This independent variable is measured using a four-item self-perceived scale with a Cronbach's alpha of 0.66 (which is adequate according to Taber (2018)), which captures the current and the predicted (next 2–3 months) drop in revenues, as well as the current and the predicted (next 2–3 months) drop in employment. The revenue and employment drops were coded using a binary variable (1 – drop in . . .; 0 – without changes or growth of . . .). To verify Hypothesis 2, self-estimation of survival probability was used. Respondents were asked regarding their predicted chances of survival, expressed on a 1 to 10 scale with 1 being the lowest probability of survival and 10 the highest (see Table 4).

Results

To estimate the model and perform the analysis, partial least squares-structural equation modelling (PLS-SEM) was employed (Hair *et al.*, 2012). PLS-SEM modelling is used if the data collected fails to follow a normal distribution, the sample size is relatively small, and it is necessary to analyse the relationships between latent constructs caused by formative indicators (Hair *et al.*, 2014; Willaby *et al.*, 2015). This approach enables statistically examine the relationships between theory-based latent variables and their indicator variables by measuring directly observable indicator variables (Astrachan *et al.*, 2014). In this study, all PLS-SEM model calculations were conducted with SmartPLS v.3.3.3 (Ringle *et al.*, 2015).

Concurrently combining factor analysis and linear regression models, SEM allows the researcher to statistically examine the relationships between theory-based latent variables and their indicator variables by measuring directly observable indicator variables.

Revenues (ln), age and family member generations in the management team and ownership as control variables had no impact on the significance levels, therefore they are not presented in the model used in this study (Randolph *et al.*, 2019).

Measurement model evaluation

Appendix 1 provides detailed information on the reliability of the measurement model. First, collinearity assessment involves the computation of each item's variance inflation

Dependent variables	Mean	Standard deviation
Crisis-induced deterioration of the economic situation		
Current drop in revenues[a]	65.66	–
Predicted drop in revenues[a]	64.46	–
Current drop in employees	22.16	–
Predicted drop in employees[a]	29.70	–
Perceived probability of survival	7.69	2.08

Note(s): [a]Dummy variables; the mean refers to the percentage of cases. These dummy variables are the items on the scale of the crisis-induced deterioration of the economic situation
Source(s): The Author's own elaboration

Table 4. Descriptive statistics of variables used as independent

factor (VIF). As a rule, VIF values above 5 indicate strong collinearity among the indicators (Sarstedt *et al.*, 2017). In the model, all the VIFs calculated were below this threshold. In the next step, bootstrapping analyses of weight confidence were carried out. Weights inform how each formative indicator contributes to a given composite construct (Chin, 1998). In two cases, the weight confidences included a zero, which could suggest the removal of these indicators. Nonetheless, the authors decided to keep these in the model, taking three considerations into account. First, the removal of a formative indicator would imply the elimination of a part of the composite latent construct. As theory suggests, the elimination of formative indicators from a model should be deeply considered, where such practice is an exception (Sarstedt *et al.*, 2014, 2017). Second, as suggested in Hair *et al.* (2016), indicators with nonsignificant weight should be eliminated if the loading is also nonsignificant. In the model, the results of all single indicators' loading confidences were significant. In other cases, only indicator deletion should be considered; hence, a decision was made to implement them in further calculations. Finally, lower loadings are frequently observed in empirical research, particularly when newly developed scales are used (Hulland, 1999). This observation is in line with the study and is partly connected with the evaluation of the manner of survivability capital mobilisation.

Structural model evaluation

Construct reliability shows whether the indicators express (measure) the constructs adequately. To test the construct reliability in the model, composite reliability (CR) and average variance extracted (AVE) were calculated (see Table 5). In the case of CR, a value of 0.7–0.95 can be assessed as "satisfactory to good" (Sarstedt *et al.*, 2014). In the model, all ratios fell within the interval recommended. An acceptable AVE is 0.5 or higher, which indicates that the construct explains at least 50% of its items' variance (Hair *et al.*, 2019). The model presented in this paper met this requirement. Additionally, Cronbach's alpha coefficients are presented in Table 5, which depict the unidimensional, multi-item scale's internal consistency. The common threshold for sufficient values of Cronbach's alpha is 0.6 (Hair *et al.*, 2006). All the latent constructs in the model exceeded this threshold as well.

The heterotrait–monotrait ratio of correlations (HTMT), which is an estimate of the factor correlation, was also calculated. To discriminate between the two factors, HTMT should be

	Cronbach's alpha	Composite reliability (CR)	Average variance extracted (AVE)	[1]	[2]	[3]	[4]
Crisis-induced deterioration of the economic situation [1]	0.660	0.791	0.502	0.709			
Internal survivability capital (mobilisation) [2]	0.860	0.899	0.642	0.292	0.801		
External survivability capital (mobilisation) [3]	0.867	0.892	0.635	0.136	0.485	0.797	
Probability of survival [4]	1.000	1.000	1.000	−0.324	−0.341	−0.334	1.000

Source(s): The Author's own elaboration

Table 5. Construct reliability, convergent validity and discriminant validity (Fornell–Larcker criterion)

significantly less than one (Henseler *et al.*, 2016). Adequate ratios associated with the model are presented in Table 6. All the HTMT in the model are statistically significant, while the variables analysed reached discriminant validity, as per the HTMT criterion.

Table 6. Discriminant validity - heterotrait–monotrait (HTMT) criterion

	[1]	[2]	[3]	[4]
Crisis-induced deterioration of the economic situation [1]				
Internal survivability capital (mobilisation) [2]	0.363			
External survivability capital (mobilisation) [3]	0.178	0.590		
Probability of survival [4]	0.396	0.362	0.301	

Source(s): The Author's own elaboration

Model assessment

Reliability of the structural model was assessed by the R^2 value, the f^2 effect size, the Q^2 predictive relevance, and SRMR, which reflect approximate model fit (Henseler *et al.*, 2016). Additionally, to check collinearity, the VIF values of the latent constructs were examined. The model's SRMR is 0.08, which indicates an acceptable fit. Other ratios are shown in Table 7.

Considering the figures in Table 7, VIFs are below the threshold of 5 (Sarstedt *et al.*, 2017), hence the reliability standards have been met. R-squares are relatively low. Following Hair *et al.* (2016), a low level of these ratios is acceptable by management research standards. In terms of the effect sizes, the f^2 for the structural model relationship can be assessed as weak. To calculate the cross-validated redundancy index (Q^2), blindfolding was used, with a suggestion that if Q^2 exceeds level 0, the model has predictive relevance (Chin and Dibbern, 2010; Henseler *et al.*, 2009).

Finally, the structural model was calculated, which was used for hypothesis testing (Table 8). Calculations were conducted using 10,000 bootstrap resamples. An interval that

Table 7. Inner variance inflation factor (VIF) values, and other model reliability ratios

	VIF			f^2			
	[1]	[2]	[3]	[4]	[2]	[3]	R^2	Q^2
Crisis-induced deterioration of the economic situation [1]		1.117	1.117		0.043	0.001		
Internal survivability capital (mobilisation) [2]							0.153	0.090
External survivability capital (mobilisation) [3]							0.112	0.052
Probability of survival [4]		1.117	1.117		0.080	0.106		

Source(s): The Author's own elaboration

Table 8. Assessment of structural model

	Path coefficient	Confidence intervals (bias corrected)
[1] to [2]	0.203** (2.912)	(0.016; 0.309)
[1] to [3]	0.032^{ns} (0.233)	(−0.209; 0.196)
[4] to [2]	−0.275*** (3.622)	(−0.417; −0.121)
[4] to [3]	−0.324*** (3.547)	(−0.481; −0.128)

Note(s): ***$p < 0.001$; **$p < 0.01$

Source(s): The Author's own elaboration

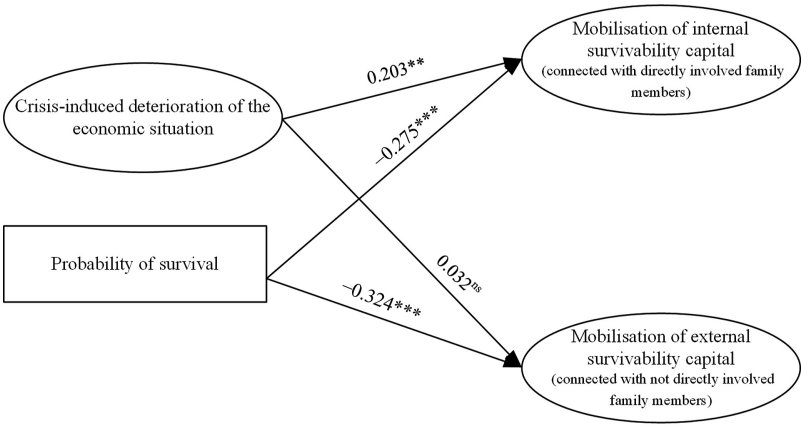
does not contain zero means that the structural path coefficient is significantly different from zero, at a confidence level of 95%. As such, the path coefficient is regarded as significant. The relationships observed are visualised in Figure 2.

First, the results for Hypothesis 1a, which examines the relationship between the crisis-induced deterioration of the economic situation and the internal survivability capital mobilisation was statistically significant. Hypothesis 1a has therefore been confirmed ($p < 0.01$). The path coefficient between the crisis-induced deterioration of the economic situation and the external survivability capital mobilisation was not significant. Hypothesis 1a has therefore not been confirmed.

The decrease in survival probability acts in favour of internal survivability capital mobilisation, at a statistically significant level. Thus, Hypothesis 2a is supported ($p < 0.001$). Assessment of survival probability as lower also motivates family members to mobilise external survivability capital. Hypothesis 2a has therefore been confirmed ($p < 0.001$). The above findings are discussed in the following section.

Discussion

The results (Figure 2) show that family firms mobilise the *internal survivability capital of the family firm* when they face crisis-induce deterioration of the economic situation as reflected by the current and the predicted drop in employment and revenues ($p < 0.01$). In this part, the findings are consistent with the results of Mzid *et al.* (2019) and Marjański and Sułkowski (2021). As concluded by Marjański and Sułkowski, due to the COVID-19 crisis, family members directly involved in the firm operations of Polish small family firms "were willing to sacrifice short-term gains for the long-term survival of the business" (p. 177). A family firm's internal survivability capital seems to be the source of the support engaged by businesses to protect the stability of the firm's functioning when expecting economic effects of a crisis. Marjański and Sułkowski further discovered that, in a crisis, family members not only contribute their own financial resources but also allow the firm to limit immediate expenditures. Similar findings have been found in a report *Family Business Response to the Pandemic* (Banyan Global, 2020). Out of the several critical responses to the COVID-19-triggered downturn, the report highlights two: (1) cash preservation (e.g. by cutting wages, reducing benefits and dividend payments, borrowing additional cash, or obtaining additional capital from current owners) and (2) stronger involvement of ownership.



Note(s): ***$p < 0.001$; **$p < 0.01$

Figure 2.
Results of assessment of model

Figure 2 shows that family firms are not willing to mobilise *the external survivability capital* of a family firm when facing crisis-induced deterioration of the economic situation. It has been assumed that sudden economic crises require rapid reaction; hence, family firms mobilise internal survivability capital first since it is associated with the family members directly involved in everyday operations. Access to these resources is easy and relatively quick. The external survivability capital associated with the relatives that are not directly involved in the business is harder to mobilise. This kind of behaviour could be explained by anthropological kinship theory (Stewart, 2003) which states that not all family members prefer to work for a family firm (Dhaliwal, 1998) and, to engage them, particular circumstances are required. Presumably, crisis-induced deterioration of the economic situation constitutes an insufficient motivation in a family firm. This behaviour could also be explained based on the kinship theory, which suggests that, in general, individuals are more likely to trust and cooperate with close relatives than with distant relatives (O'Brienet *et al.*, 2018). Internal survivability capital is engaged as first; external survivability capital mobilisation apparently requires some barriers to be broken associated with the family members not directly involved in the business. This statement, however, requires further study.

Examination of the results of structural equation modelling (Figure 2) indicates that when family firms assess a lower likelihood of survival during a crisis period, they are more prone to mobilise both the internal ($p < 0.001$) and the external ($p < 0.001$) survivability capital. These results are in line with Olson *et al.* (2003), who confirmed that temporary aid from family members who are not involved in day-to-day activities is visible during crises. When the internal survivability capital of a family firm constitutes a crucial source of support for the business, and when the survival of the family firm is uncertain, external family resources (both operational and financial) are more likely to be engaged in order to subsidize the business. It takes time for family members to realise that cooperation and mutual support could contribute to survival during an economic downturn.

This study provides some additional findings. Comparison of structures of the family firms surveyed showed deep differences in the family firms' responses to lost revenues and employee reductions. Current revenue reductions were observed among 65.7% of family firms, with 64.5% predicting a drop in the months to come. In contrast, only 22.2% of family firms noted a decrease in employment, and 29.7% estimated that they would reduce staff in the following month. The authors noted that the downturn in revenues was caused by external and independent factors that led to a common decrease in supply and demand and a general slowdown of the economy. On the contrary, employment reductions depend on the internal decisions of a business entity, which means that family owners and managers can subjectively decide whether to reduce the number of employees.

The significantly lower percentage of family firms that reduced staff, in comparison with the non-firms that did not cut the workforce, seems to be in line with numerous studies presenting lesser propensity of family firms to downsize their workforce or cut wages under crisis conditions (Lee, 2006; Lee and Painter, 2013; Bjuggren, 2015; Van Essen *et al.*, 2015; Marjański and Sułkowski, 2021). Van Essen *et al.* (2015), however, pointed out that favourable employee outcomes in family firms are not crisis-specific, but are common under both stable growth and crisis conditions. These findings are consistent with other results showing that the family firms listed on the French stock exchange (Sraer and Thesmar, 2007) and in Sweden (Bjuggren, 2015) seem to be less anxious to translate temporary shocks in sales and product demand into changes in employment.

Family firms' workforce stability during crises may occur because many family firms employ family members, friends, managers and owners who more easily identify with their company (Bjuggren, 2015). These employees might also enjoy the prestige and recognition of the entrepreneur status in the community they belong to (D'Aurizio *et al.*, 2015; Ellul *et al.*,

2014). Evidence also shows that family firms provide better employment protection but lesser wage stability compared to non-family firms, particularly in the face of temporary drops in sales. This situation can be related to the high level of corporate social performance during recessions, as demonstrated by Kashmiri and Mahajan (2014).

Summing up, the decision to lay off employees in family firms is treated as a last resort (Marjański and Sułkowski, 2021). Considering the lower propensity of the businesses analysed to reduce employment, the number of businesses employing 1 to 5 persons was isolated. Only 23 entities (14%) reported a low number of employees, and three were run by one person. Due to their small size, these firms are naturally less prone to staff reductions. This finding seems to suggest that the lesser employee reductions in family firms is not connected with company size but rather with the reasons mentioned earlier.

Conclusion

Family firms are a common form of organisation that dominate many economies. In spring 2020, the sudden negative effect of the COVID-19 pandemic struck family firms and other companies and has continued to affect their operations to this day. The main survey intention was to investigate whether the family firms experiencing and expecting economic turbulences due to the COVID-19 pandemic would activate family business members' private resources to support their businesses. The symptoms of an economic downturn were measured by revenue and employment drops (current and future) as well as by the owners' perception of survival probability during and after the crisis. It was expected that the family firms' behaviour during the confrontation with the negative results of the coronavirus would be unique. In line with SFBT, the authors anticipated that when fearing a threat to their going concern, family members would contribute personal resources to support their businesses. The families' willingness to fund the company with private resources as a form of survivability capital would result from the unique aspect of familiness.

The study contributes to prior research concerning the resilience of family firms. The notion of survivability capital as a type of unique resource has been addressed by several authors as a theoretical aspect of family businesses' resilience capacity (Gomez-Mejia *et al.*, 2007; Brewton *et al.*, 2010; Arrondo-García *et al.*, 2016). The authors attempted to develop this theoretical aspect and extracted two general dimensions of survivability capital: internal and external. The criterion for the division of survivability capital entailed the nature and manner of family members' involvement in family firm activities. A dedicated scale, embedded in the theory, was used to identify and differentiate the dimensions of survivability capital. Further, the authors examined whether family firms attempted to engage the resources identified under crisis circumstances.

Family members running businesses that face crisis-induced deterioration in their economic situation begin to engage internal survivability capital as the probability of family firm failure increases. These findings could complement the RBV theory, which focuses on the employment of unique, scarce, valuable and hardly imitable internal firm resources (Barney, 1991). In the authors' opinion, it has been empirically confirmed that the internal survivability capital components could be added to the set of such unique resources. These resources include the family members' propensity to work without pay or to delay remuneration, as well as the family firms' willingness to engage private resources (both financial and nonfinancial) to protect the business during a crisis. Furthermore, the results obtained show that the mobilisation of survivability capital in family firms increases if a given family business predicts a dropping probability of survival during the COVID-19 pandemic. In such a case, however, businesses attempt to employ both internal and external survivability capital. Examples of internal survivability capital have been mentioned above. External survivability capital components include the engagement of the family members not

directly involved in the family firm in the form of unpaid work. Additionally, both directly and not directly involved family members are willing to engage private nonfinancial (such as collateral for new loans) and financial (cash) resources to support business survival.

The findings seem to support the statement that not only the family members not directly involved in firm operations are crucial for family businesses (Anderson *et al.*, 2005; Villalonga *et al.*, 2015) but also that accessing family firm external survivability capital corresponds with SFBT. The SFBT theory assumes that during periods of crucial economic downturns, family members who are engaged in family firms interact with each other and with other family members who are not engaged in business operations. Family members exchange personal resources across business boundaries to protect and ensure a given family firm's sustainability (Stafford *et al.*, 1999, 2013; Danes *et al.*, 2016; Haynes *et al.*, 2019).

Such a specific response of family firms to the COVID-19 crisis seems to be a "family effect" resulting from unique characteristics, such as the socioemotional involvement of the owners and the managers or their placement of the long-term perspective over short-term profits. The family firms' capacity to access family business-owned capital (human, social, financial) is positively correlated with those businesses' sustainability (Danes *et al.*, 2009). This capacity can also have vital practical implications for family firm advisors when recommending which type of family member private resources could be used as a means of family firm survival. What is more, the study offers a tool that can be useful by family business owners and managers. The "mobilisation of survivability capital" scale can be used when examining family engagement in business. The potential results can provide family firms with useful information on how to advance their business strategy and strengthen their family bonds.

Policymakers also can benefit from these results. Government plays a crucial role in supporting businesses during economic shocks. The results suggest that, in the case of family firms, which can mobilise their internal and external survivability capital, more targeted aid can be provided. Policymakers should consider alleviating tax burdens for interfamily loans and recapitalisation. For example, in Poland, such actions are subject to tax on civil law transactions, whereas in some other countries they are subject to a stamp duty (European Commission, 2021). The exemption from these taxes if these transactions are concluded between a family business and family members, or between firms owned by relatives, might mobilise survivability capital in family business even more. However, in the case of interfamily loans, the exemption should consider only no-interest loans (or with a very small interest rate). Free or cheap loans can be considered as a method of family firm support not a way to transfer firm money to family members.

This study has limitations that, nevertheless, present opportunities for future research. The first limitation is associated with the sampling approach. The use of a purposive sample (Polish private businesses which define themselves as "family firms") limits the generalization of findings to family firms in other countries, to publicly listed companies, or to entities defined using any other approach (Horváthová *et al.*, 2020).

To expand these findings, similar studies should be conducted on other samples, using the same or similar methods. Additional research could also confirm whether other family firms access such invisible resources during economic and market downturns. In particular, it is worth examining how the mobilisation of survivability capital works in countries with different levels of government support such as varying subsidies and tax reductions.

The proposal to distinguish two dimensions of survivability capital can contribute to further research verifying such classifications. The two dimensions may be added to the various descriptive characteristics of family firms, such as size, the business-life-cycle stage, the generation involved in ownership and direct management, the company status (private or public), and the type of family firm by Dyer's (2006) classification. In the case of small and medium privately held family firms, internal and external survivability capital can be accessed, since the owners' private financial and nonfinancial resources are sufficient to

support company performance. An opposite situation may apply to large family firms when the resources required to support the company are greater than the owning family's wealth. Moreover, if a given family firm is publicly listed, family members, especially those not involved in day-to-day operations, may not agree to use their private resources as survivability capital, unless non-family shareholders also support the company.

In future research, it is worth examining the sequential order of private resource mobilisation, depending on the extent or the level of the changes realized or expected in the business and its environment.

Furthermore, the mobilisation of survivability capital in flat-structured organisations using agile methodology seems to constitute an interesting field for further exploration.

Another interesting direction for further research is to examine how survivability capital mobilisation can be moderated by the occurrence of potential conflicts (both family-related and business-oriented) in family firms. It can be assumed that if conflicts exist between family members, survivability capital will be less likely to be mobilised.

After the COVID-19 crisis, it would be of interest to evaluate the financial performance of family firms that activated survivability capital in comparison with those that did not do so. Such a study would allow a better understanding of the application of survivability capital and its dependence on the use of effective strategies to cope with uncertainty and disruption.

Moreover, the dimensional survivability capital model presented can contribute to research addressing the SEW theory. It seems valuable to measure SEW among the family members who, during turbulent times, engage their resources to support family firms. Measurement of SEW can be especially interesting in the case of external survivability capital owners, who could be assumed to increase their emotional involvement in the family firms' affairs.

Notes

1. Family firms' responses to natural disasters have also been examined by Brewton *et al.* (2010), Cater and Beal (2014), Haynes *et al.* (2019), and Salvato *et al.* (2020).
2. Five experts assessed the face validity of the survivability constructs (two family firm managers, two academics and one representative of the financial sector). Out of the 12 items measuring the mobilisation of survivability construct, ten were judged as somewhat representative by all experts.

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Appendix 1

Table A1.
Assessment results of measurement model

	Loading	SD	Confidence intervals (Bias corrected) 2.50%	97.50%	*P* values	Weight	SD	Confidence intervals (Bias corrected) 2.50%	97.50%	*P* values	VIF
Crisis-induced deterioration of the economic situation											
Current drop in revenues	0.576	0.134	0.337	0.864	0.000	0.191	0.135	−0.064	0.466	0.157	1.228
Predicted drop in revenues	0.598	0.163	0.301	0.940	0.000	0.338	0.173	0.014	0.692	0.050	1.172
Current drop in employees	0.780	0.109	0.581	1.009	0.000	0.444	0.135	0.181	0.711	0.001	1.453
Predicted drop in employees	0.821	0.092	0.669	1.031	0.000	0.416	0.103	0.233	0.639	0.000	1.524
Internal survivability capital (mobilisation)											
Family members involved in FF will work without pay	0.853	0.028	0.799	0.910	0.000	0.294	0.037	0.223	0.369	0.000	2.783
Family members involved in FF will agree to hold off their remuneration	0.848	0.035	0.784	0.920	0.000	0.252	0.030	0.193	0.312	0.000	2.697
Family members involved in FF will activate their private assets to support its functioning (a car, flat etc.)	0.841	0.033	0.778	0.907	0.000	0.288	0.038	0.214	0.363	0.000	2.054
Family members involved in FF will secure a new loan with private assets	0.657	0.064	0.536	0.787	0.000	0.186	0.044	0.100	0.275	0.000	1.64
Family members involved in FF will provide monetary support (loans, recapitalisation)	0.790	0.049	0.696	0.889	0.000	0.216	0.043	0.130	0.299	0.000	2.083
External survivability capital (mobilisation)											
Family members not involved in FF will engage in its functioning (free support for operational activity)	0.852	0.034	0.788	0.923	0.000	0.378	0.082	0.219	0.542	0.000	2.273
Family members not involved in FF will activate their private assets to support it functioning (a car, flat etc.)	0.915	0.041	0.844	1.006	0.000	0.285	0.041	0.205	0.368	0.000	3.559
Family members not involved in FF will secure a new loan with private assets	0.828	0.072	0.700	0.983	0.000	0.265	0.063	0.144	0.393	0.000	2.806
Family members not involved in FF will provide monetary support (loans, recapitalisation)	0.862	0.065	0.746	1.003	0.000	0.252	0.044	0.168	0.342	0.000	3.09
Family firms run by different family members will support each other	0.429	0.160	0.127	0.757	0.008	−0.045	0.117	−0.269	0.190	0.701	1.328
Probability of survival											
Perceived probability of survival	1	0	1	1		1	0	1	1		1

Appendix 2

Table A2. Spearman's correlation coefficient for analysed latent constructs

	[1]	[2]	[3]	[4]
Crisis-induced deterioration of the economic situation [1]	1			
Internal survivability capital (mobilisation) [2]	0.275**	1		
External survivability capital (mobilisation) [3]	0.064	0.463**	1	
Probability of survival [4]	−0.300**	−0.295**	−0.363**	1

Note(s): **$p < 0.01$

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