Managerial Capabilities and Strategic Renewal in Family Firms during the COVID-19 Crisis: The Moderating Role of Founding Generation

Abstract

This study examines whether founding generation managed family firms are capable of responding proactively to the COVID-19 disruption via firm renewal. We used a unique global COVID-19 specific survey dataset comprising of 2,130 family firm observations. Our findings indicate that in comparison to the later generations, founding generation-managed family firms only do better at strategic renewal as a response to the crisis when they have sufficient managerial capabilities. Our study recommends that family businesses, especially those managed by the founding generations should emphasize managerial capabilities rather than merely focusing on socioemotional wealth (SEW) when deciding on crisis coping strategies.

Keywords: Family firms, generation, COVID-19, strategic renewal, managerial capabilities

INTRODUCTION

The COVID-19 led to the closure of many firms while some have tried to survive. Surviving firms have introduced new measures, such as transforming their business models to align with the new uncertain business environment (Clauss, Breier, Kraus, Durst, & Mahto, 2021). Undoubtedly, "a few similarities exist across crises such as ambiguity, anxiety, and tension to name a few, and the recent COVID-19 situation is no different" (Dirani et al., 2020 p.385). However, the 2008 financial crisis differs from the COVID-19 in that the COVID-19 crisis is truly global with demand and supply disruptions (Kano & Hoon Oh, 2020; Li, Farmanesh, Kirikkaleli, & Itani, 2021) as well as health emergency implications (Gereffi, 2020). In this race to salvage firms from the COVID-19 disruptions, family firms, defined as companies that are owned and/or managed by business families (Block, 2010; Issah, 2021) are significantly affected in terms of operations and revenues (Calabrò, Frank, Minichilli, & Suess-Reyes, 2021; De Massis & Rondi, 2020; Leppäaho & Ritala, 2021). Family firms constitute about 2/3 of businesses around the world, contribute about 70%-90% to annual GDP and about 80% contribution to employment (De Massis, Frattini, Majocchi, & Piscitello, 2018).

In comparison to non-family firms, the crisis made family firms more anxious because family firms do not only focus on economic outcomes but also desire to protect their socioemotional wealth (SEW) (Firfiray & Gomez-Mejia, 2021; Le Breton-Miller & Miller, 2021). SEW refers to the non-financial value ascribed to the firm by family members which is expressed in five dimensions such as binding social ties, emotional attachment, family members' identification with the firm and renewal of family bonds through dynastic succession (Berrone, Cruz, & Gomez-Mejia, 2012). We assume that family businesses are affected both economically and emotionally (e.g. SEW). For instance, on the one hand, because of low sales, many family firms tried to renew their strategies and business model for survival (Clauss et al., 2021). On the other hand, family firms are conscious about non-economic goals (Firfiray & Gomez-Mejia, 2021) as some of the dimensions of SEW (e.g. family control and binding social ties etc.) are significantly affected which in turn influence their decision making process (De Massis & Rondi, 2020).

In view of this, many family businesses have focused on renewing their strategies by initiating activities such as changing their strategic direction (Kraus et al., 2020), organizational culture (Calabrò et al., 2021) and adopting digitalization strategies (Gerulaitienė, Pundzienė, & Samara, 2021). In this sense strategic renewal is defined as "the process that allows organizations to alter their path dependence by transforming their strategic intent and capabilities" (Schmitt, Raisch, & Volberda, 2018, p. 85). For strategic renewal to be successful, firms need the right balance of managerial capabilities. Amore, Pelucco, and Quarato (2021) have shown that family businesses with low managerial capabilities tend to respond poorly to the COVID-19. Here we define managerial capabilities as the ability and power to resolve conflicts, make timely decisions, manage environmental issues, and align firm resources in a way to achieve objectives and competitive advantage (Ng, Dayan, & Di Benedetto, 2019).

Family firms are heterogeneous due to, for instance, the differences in the family's ownership, involvement in management and the generation in control, which may lead to varying outcomes (Chua, Chrisman, Steier, & Rau, 2012). Literature also indicates that because of heterogeneity, some family firms are more concerned with SEW than others, which can change their responses to competitive situations (Gomez-Mejia, Makri, & Kintana, 2010).

Specifically, founding generation firms – defined as firms that are managed by the individuals who started and built the business from scratch (Block, 2012) – are deemed to be highly SEW oriented and desire to preserve SEW (Berrone et al., 2012). However, the desire to preserve SEW has been shown to decline in later generation managed family firms which makes them more prone to engage in risky activities than founding generation family firms (Dick, Wagner, & Pernsteiner, 2021). Despite this, only a few studies have been conducted on the role of the generation in control in family businesses during crises (e.g. Amore et al., 2021; Arrondo-García, Fernández-Méndez, & Menéndez-Requejo, 2016; Firfiray & Gomez-Mejia, 2021). The heterogeneity of family firms relative to the generation in control and how that might influence the strategic responses of these firms to COVID-19 has largely been ignored by existing studies on the COVID-19 crisis (e.g. Calabrò et al., 2021; Calabrò, Minichilli, Amore, & Brogi, 2018; Clauss et al., 2021; Leppäaho & Ritala, 2021). We believe this is an important gap in the literature, which raises the question: do managerial capabilities positively influence strategic renewal when the founding generation in control of the family firm?

Our research fills this important gap and examines the moderating role of founding generations in the relationship between managerial capabilities and strategic renewal in family firms. Our study is timely and relevant because studying the role of the generation in control in strategic renewal allows us to understand the dynamics of strategic renewal in family firms during the COVID-19. It also helps us to know how to leverage the generation in control and foster the process of putting an end to the negative consequences of the COVID-19 given that founding generations have been shown to possess the coordination capabilities and competences needed for firm renewal (e.g., Eddleston, Otondo, & Kellermanns, 2008; Fang, Kotlar, Memili, Chrisman, & De Massis, 2018).

Using a unique global COVID-19 specific survey dataset comprising of 2,130 family firm observations from 69 counties, our study makes two important contributions to the literature on strategic responses to the COVID-19. First, we extend the current literature on business management during the COVID-19. In particular, our research contributes to family business literature and highlights how they renew their strategies during COVID-19. Second, our research contributes to the heterogeneity literature that is an ongoing debate in family businesses. Our study shows how generation in control influence the strategic response of family firms during the COVID-19. In particular, we highlight that in the presence of high managerial capabilities, the strategic response of the founding generations is better than later generations during COVID-19.

THEORY AND HYPOTHESES

Socioemotional wealth in family firms

SEW is defined as the non-financial benefits that accrue to members of the owning family due to their ownership of the business (Gómez-Mejía, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007). SEW is expressed in several dimensions, such as the renewal of family bonds via dynastic succession, binding family ties, family members identification with the firm, family control and influence and emotional attachment (De Massis & Rondi, 2020; Gómez-Mejía et al., 2007). It also includes being able to provide employment for family members and using business resources to meet family priorities (Kellermanns, Eddleston, & Zellweger, 2012; Miller & Le Breton–Miller, 2014). It is widely accepted that family firms' desire to preserve SEW significantly influences their strategies and decisions (Arrondo-García et al., 2016; Hussinger & Issah, 2019). For this reason, family firms are thought to be risk averse and avoid decisions that are comprised of substantial risks that may serve as a threat to SEW, such as the use of debt (Anderson, Mansi, & Reeb, 2003), R&D investment (De Massis, Ding, Kotlar, & Wu, 2018), firm acquisitions (Hussinger & Issah, 2019), industry cooperatives (Gómez-Mejía et al., 2007), etc.

Differences in socioemotional wealth among generations

There are many sources of heterogeneity among family firms such as governance, goals and the controlling family's capacity to execute (Chua et al., 2012). However, one source of heterogeneity that has proven to have a significant impact on family firms' strategy is the generation in control of the firm (Eddleston, Kellermanns, Floyd, Crittenden, & Crittenden, 2013). This is because the different generational stages involved bring about divergent expectations in the management of family firms. We note that several dimensions of SEW, such as personal commitment and identification of family members with the firm may decline as the firm ages and newer generations join the firm (Eddleston et al., 2013). In view of this, prior research has shown that there is a marked difference between the founding generation and later generations in terms of their attitude towards engaging in risky activities (Berrone et al., 2012). Arrondo-García et al. (2016) note that founding generation controlled family firms tend to have higher accumulated SEW. This makes the cost of SEW losses pronounced, thus increasing the risk aversion in founding generation firms (Tsao, Chang, & Koh, 2019). Founders of family firms think of themselves as the responsibility bearers of their family identity and take their responsibility to pass on a performing business to future generations as a means of sustaining the family identity (Brinkerink & Bammens, 2018). Thus intensifying the importance of SEW in founding generation firms (Tsao et al., 2019) While founding generations are keen on preserving SEW and thus less likely to engage in risky activities (Brinkerink & Bammens, 2018), consideration for SEW declines in later generation managed firms, and therefore, they have high risk taking behaviors (Dick et al., 2021).

Strategic renewal

Strategic renewal is an integral part of the strategy process (Schmitt et al., 2018; Wielemaker, Volberda, Elfring, & Baden-Fuller, 2003). Defined as "the process that allows organizations to alter their path dependence by transforming their strategic intent and capabilities" (Schmitt et al., 2018, p. 85), strategic renewal is concerned with the transformation of an organization's core capabilities that are associated with competitive advantage. This usually affects all levels of the organization and enables its the long-term survival (Schmitt et al., 2018). This implies that strategic renewal essentially entails a substantial change in the strategy of an organization, which for instance may involve how products and services are produced as well as how markets are reached, ensuring cost leadership etc. (Bauerschmidt & Chrisman, 1993).

Recent strategic management literature labels these strategic renewal decisions and processes as strategic pivoting as they are aimed at organizational strategic change or renewal (Kirtley & O'Mahony, 2020; Pillai, Goldfarb, & Kirsch, 2019). In particular, interest in strategic renewal has increased during the COVID-19 due to the increasing need for strategic changes across industries (e.g. Amankwah-Amoah, Khan, & Osabutey, 2021). Strategic renewal is crucial for businesses that are aiming to overcome the negative consequences of the COVID-19 (Klyver & Nielsen, 2021).

Managerial capabilities

An organization is a complex entity where managers play a central role in its success or failure as they have the power to manage resources, make strategies, exploit opportunities and improve efficiency (Anzengruber, Goetz, Nold, & Woelfle, 2017). Within the responsible framework, managers make decisions based on information processing approaches and cognitive demand during crises such as COVID-19 (Tabesh & Vera, 2020) and strategic planning for the future (Anwar, 2018). Sometimes they face challenges in managing the conflicting problems arising from the asymmetry of information among employees (Garcés-Galdeano, García-Olaverri, & Huerta, 2016).

Graves and Thomas (2006) consider managerial capabilities as *management capacity* (the human resources available for managerial tasks), *management expertise* (the competencies of managers) and *management processes* (the planning and control techniques utilized by managers). Managerial capabilities refer to the ability and power to resolve conflicts, motivate and communicate with stakeholders, making time decisions, react to changing opportunities, manage environmental issues and align firm resources in a way to achieve objectives and competitive advantage. Hence, when an organization is confronted with strategic change, the need for managerial capabilities increases and more experienced and capable management is required (Ng et al., 2019). This demonstrates that managerial capabilities play a significant role when an organization is confronted with a crisis such as COVID-19 (Tabesh & Vera, 2020).

Hypotheses

Managerial capabilities and strategic renewal in family firms

According to Helfat and Martin (2015), differences in the success of strategic renewal are determined by managerial capabilities. Furthermore, businesses with sufficient managerial capabilities tend to perform better during crises (Kumar & Zbib, 2022). In view of this, recent studies suggest organizational transformation strategies such as digitalization, business model innovation and change in organizational culture as possible responses to the COVID-19-fueled disruption (Calabrò et al., 2021; Kraus et al., 2020). The role of leadership in providing interconnected strategies, strong communication and transparency has been cited as useful strategic changes that have helped family firms to overcome the negative effects of the COVID-19 and preserve SEW (Firfiray & Gomez-Mejia, 2021). Soluk, Kammerlander, and De Massis (2021) write about the capabilities in family firms that enable them to form alliances and adopt digital technologies during the COVID-19. These capabilities, coupled with the agility and informal decision-making processes (Acquaah, Amoako-Gyampah, & Jayaram, 2011), allow family firms to engage in the relevant organizational changes during crises.

Hypothesis 1: The effect of managerial capabilities on strategic renewal in family firms during the COVID -19 disruptions is positive.

The moderating role of the founding generation between managerial capabilities and strategic renewal

The COVID-19 has challenged widely held assumptions of family firms such that they may be willing to engage in practices that are contrary to these assumptions, such as organizational changes (De Massis & Rondi, 2020). In responding to the COVID-19, firms need the requisite managerial capabilities to embark on firm renewal initiatives such as changing business models and other aspects of the firm.

Founding generation controlled family firms are more concerned with the preservation of SEW (Hussinger & Issah, 2022) and are less likely to make major changes to their strategies during periods of uncertainty. However, high managerial capabilities coupled with the willingness to forgo deeply held assumptions and adopt new and risky strategies to ensure that the business survives during the COVID-19 crisis (De Massis & Rondi, 2020), will attenuate the reluctance of founders to execute risky organizational changes. For instance, managerial capabilities such as the ability to coordinate, foster harmony, sense of belonging and family members' identification with the firm are often prevalent in founder-controlled family firms (Eddleston et al., 2008). Such capabilities enable family businesses to change their behaviors in order to gain desirable outcomes during the COVID-19 crisis (e.g. Soluk et al., 2021). Consequently, the presence of these managerial capabilities can alter founding family firms' perception of risk of organizational changes and increase the likelihood of success of strategic outcomes such as firm renewal (Chirico, Sirmon, Sciascia, & Mazzola, 2011). However, we expect that the desire to preserve SEW and the low risk tolerance level of founding generations, will reduce the magnitude of the positive effect of managerial capabilities on strategical renewal. In this light we hypothesize that:

Hypothesis 2: The positive association between managerial capabilities and strategic renewal will be less positive if the firm is managed by founding generation

The research model is presented in Figure 1.

Insert Figure 1 about here

METHODS

Data Collection

We used data from a global survey conducted by the Successful Transgenerational Entrepreneurship Practices (STEP) global consortium. The STEP global consortium is an independent organization with members from universities around the world. The global survey was launched in June 2020 and completed in October 2020. The questionnaire was developed in English and translated into 13 different languages. In the next step, the questionnaire was then pre-tested to ensure consistency and clarity. This led to the modification of unclear and vague questions. Respondents were senior family business leaders with significant control over their company's strategic direction. This led to a final sample of 2,130 firm observations from 69 countries. Germany, Spain, Rwanda and France are the most represented countries in the sample with 383, 377, 117 and 102 firms respectively. In terms of industrial classifications, 525 (24.65%) of these firms are in manufacturing, 268 (12.58%) in wholesale and retail, 181 (8.50%) in construction and 91 (4.27%) in primary industries.

Variables

Dependent variable. To capture *strategic renewal* during the COVID-19 outbreak, we considered the pivoting strategies employed by firms which measures the decisions taken by firms to transform their businesses in response to the new environment that was created by the COVID-19 disruptions. In view of this, seven questions were used to measure strategic renewal that were adapted from (Klammer, Gueldenberg, Kraus, & O’Dwyer, 2017). Managers were asked to evaluate how their firms were strategically responding to the COVID-19. This was based on a 5-point Likert-type scale from 1 (completely rejected the strategy) to 5 (strongly engaged with this strategy). In terms of overall reliability, we used a factorial analysis with a varimax rotation and Kaiser Normalization to generate a single construct with a Cronbach $\alpha = 0.80$. Furthermore, the Bartlett test of sphericity reveals a p-value equal to 0.00, which is an indication of a good correlation among the items.

Independent variable. We captured managerial capabilities using four questions that asked managers to evaluate the capabilities that were exhibited by the leadership of firms in response to the COVID-19. These items were adapted from Lee, Vargo, and Seville (2013) and were slightly modified according to the study requirements. This construct has a Cronbach α = 0.87 indicating overall reliability.

Moderating variable. Generation is captured as the generational stage that is in charge of the management of the family business. This is measured as a dummy variable which takes the value 1 if the firm is managed by the founding generation and0 if managed by later generations. All the items are reported in the appendix.

Control variables. We controlled for variables that might influence the strategic renewal of firms. First, we controlled for *firm size*. We measured this as the natural logarithm of the total number of employees to account for the skewed nature of the variable. Revenue is controlled based on a 6-point Likert-type scale from 1 (revenue has decreased) to 6 (revenue has increased). Next we controlled for *firm age* which is the number of years of operation. Furthermore, we controlled for the location of firms in our sample using two main home countries. We created two dummy variables for *Germany* and *Spain* where each variable takes the value of 1 for firms located in these countries and 0 otherwise. We also included four industry dummy for *manufacturing*, *construction*, *wholesale* and retail and *service*. These variables take the value of 1 for firms that operate in these industries and 0 otherwise. To avoid multicollinearity, we did not include the *primary industries* dummy in our model. Next, we controlled for the percentage share of family *ownership*. We took the natural logarithm of this variable due to its skewed nature. Finally, we controlled for corporate social responsibility (CSR). Here, three items were used to capture this construct that were adapted from (Martínez & Del Bosque, 2013). Managers were asked to indicate activities undertaken by their firms for community and societal benefit during the COVID-19. In terms of overall reality, we employed a factorial analysis with a varimax rotation and Kaiser Normalization to generate a single construct with a Cronbach α = 0.84. The Bartlett test of sphericity also reveals a p-value equal to 0.00, which indicates a good correlation among the items.

RESULTS AND ANALYSIS

Descriptive statistics

Table 1 shows the correction coefficients of the variables in our analysis. We find a high correlation between the founding generation and firm age (-0.59). However, the variance inflation factor (VIF) test indicates that multicollinearity is not an issue as the mean of VIF stands at 2.28 far below the acceptable level of 10 (Clauss, Spieth, Klusmann, Issah, & Kesting, 2022).

Regarding the descriptive statistics, *strategic renewal* shows a mean of 3.04 indicating that the firms in our sample are fairly involved in firm renewal activities. The mean value of 4.13 indicates the average level of managerial capabilities of the sampled firms. The firms in our sample are relatively small given the mean value of 3.99 for firm size. In terms of firm age, the mean of 3.48 shows that our sampled firms are young. With a mean of 4.50 we indicate that the family share of ownership of the firms is relatively high.

Insert Table.1 about here

Regression results

Our results are based on multiple linear regression models. In hypothesis 1, we predicted a positive relationship between managerial capabilities and strategic renewal in family firms. Our results in Table 2 Model 2 ($\beta = 0.22$, $p < .01$) show statistically significant support for this hypothesis at 1%.

In hypothesis 2, we predicted that the positive association between managerial capabilities and strategic renewal will be less positive if the firm is managed by the founding generation. Model 2

($\beta = 0.12$, $p < .05$) of Table 2 provides empirical support for this hypothesis at the 5% level of statistical significance.

Insert Table.2 about here

Robustness test

Self-selection bias

Regarding concerns about selection based endogeneity bias (Heckman, 1979), we reasoned that applying multivariate techniques that regress outcomes measures on organizational choices such as strategies, investments and managerial decisions may be undermined by self-selection based endogeneity bias (Clougherty, Duso, & Muck, 2016). This raises concerns about internal validity as parameters can be biased and lead to incorrect results, hence wrong conclusions (Titus Jr, House, & Covin, 2017). Selection bias is widely regarded as a subform of the omitted variable bias concern (Antonakis, Bendahan, Jacquart, & Lalive, 2010).

As firms self-select to engage in strategic renewal activities, we conducted an econometric technique commonly applied to correct for self-selection bias (Heckman, 1979; Titus Jr et al., 2017). We created a control variable known as the inverse mills ratio. The results from this analysis is consistent with our main findings. This suggests that selection based endogeneity bias is not a problem in our study. The results are available from the authors.

DISCUSSION AND CONCLUSION

Discussion

Our study is embedded within the literature on responses to crises which suggests that firms can pivot (Kirtley & O'Mahony, 2020; Pillai et al., 2019),adopt renewal strategies (Schmitt et al., 2018) and innovate their way out of the COVID-19 crisis (Kraus et al., 2020). Our paper analyses the effect of managerial capabilities of family firms on strategic renewal considering the moderating role of the generation in control in the context of the COVID-19 disruptions. Our findings show that high managerial capabilities in family firms have a positive effect on strategic renewal. In terms of the generation in control, we find that the founding generation has a negative effect on strategic renewal. However, the moderation effect indicates that the intensity of positive effect of managerial capabilities on strategic renewal reduces when a founding generation manages the firm. This shows that family firms that are controlled by the founding generation were generally hesitant to engage in strategic renewal during the COVID-19 disruptions. This is contrary to early evidence that indicated that family firms were making organizational changes as a response to the crisis (e.g. Kraus et al., 2020). However, these studies did not take into account the role of the generation in control. However, our research show that founding generation firms are able to adopt crisis-driven strategies only when they have the needed strategic capabilities in the firm (Arrondo-García et al., 2016).

Furthermore, prior research on the effect of generation in control on crisis performance shows that founding generation family firms perform better than later generation family firms during crises (Arrondo-García et al., 2016). In our view, such performance is realized when founding generation family firms undertake crisis led firm renewal activities such as changing their business models (Kraus et al., 2020), adopting digitalization strategies and changing the business culture to reflect the uncertain business environment (Calabrò et al., 2021; Kraus et al., 2020). The ability of family firms to engage in firm renewal strategies depends on their managerial capabilities (Agyapong, Ellis, & Domeher, 2016; Arrondo-García et al., 2016; Ng et al., 2019). Clearly, this is consistent with our finding of a positive effect of managerial capabilities on strategic renewal, where the effect remains positive when the founding generation is in control.

Contributions to research

Our study contributes to research in two ways. First, we contribute to the literature on crisis management and in particular the management of the COVID-19. We highlight how family businesses renew their strategies during the COVID-19. We add to the literature on strategic response of family business during COVID-19 (e.g. Kraus et al., 2020) by employing empirical data of 2,130 family firms.

Second, we contribute to the family business literature, particularly to the ongoing discussion on family firm heterogeneity (Chua et al., 2012; Gomez-Mejia et al., 2010). We show that depending on the generation in charge of the management of the family firms, the reactions to crisis are significantly different from each other (De Massis & Rondi, 2020; Rondi, De Massis, & Kotlar, 2019), and it particularly highlights the importance of building managerial capabilities and competences in family firms led by founder generations as these will pay off when firms have to face unforeseen crises.

Managerial implications

This research has a few useful implications for family businesses. We found that firms controlled by founders have a poor strategic response to the COVID-19 because of their high desire for SEW and poor risk-taking ability. We recommend that founders should emphasize the changing environment and a quick strategic adjustment rather than merely preserving their SEW during crises. Firms that are unable to change on time during crises may fail (De Massis & Rondi, 2020) .

Our results also show that managerial capabilities enable family businesses change their strategic posture during the COVID-19. Managerial capabilities are important in coping with COVID-19 because family businesses with poor managerial capabilities face the worst performance in the COVID-19 (Amore et al., 2021). Our research strongly recommends that founder-managed firms should develop managerial capabilities because founder managed firms without capabilities have poor strategic responses. Hence, rather than merely preserving SEW, founders should build capabilities in order to cope with the crisis.

Limitations and future research

Our study is not without limitations. First, our study uses heterogeneous data of firms from different countries. However, the effects of the COVID-19 disruptions were not unique across all countries. There is a vast difference between how the COVID-19 affected developing countries and advanced economies—should be studied by future researchers.

Second, our analysis focuses only on quantitative data, thus ignoring the opportunity to have an in-depth understanding of the motivations and decision processes in the wake of the COVID-19. Future studies may take a qualitative approach to understand these dynamics and how generational tensions influence the strategic renewal.

Third, our study does not measure and isolate individual effects of the dimensions of SEW that have the potential to influence the strategic decisions of family firms in the COVID-19 (De Massis & Rondi, 2020). Future studies may take into consideration how the current uncertainties trigger family firms to decide against these time-tested assumptions, for instance by laying off employees or actively involving external members (De Massis & Rondi, 2020; Gómez-Mejía et al., 2007).

Fourth, a further limitation of the paper is the time period of the data (Jun 2020-Oct 2020). For instance, in mid-2020, many business-owners and policy-makers thought that the COVID-19 situation would be less dangerous and would not have a long-term economic impact. However, this turned out different with long-lasting negative economic and social consequences. Future studies may extend the scope of data to cover the beginning to present time period during the COVID-19.

Conclusion

The uncertainties and disruptive business environment created by the COVID-19 challenge existing assumptions about family businesses and ways of doing business. This has thus compelled organizations to alter their strategic posture to align with the new environment. The present study is an attempt to understand the role of the generation in control in fostering strategic renewal with a focus on the enabling effect of managerial capabilities in family firms. Our results revealed that managerial capabilities significantly and positively while founding generations significantly and negatively influence strategic renewal in family firms during the COVID-19. However, founding generation managed family firms renew their strategies only when there are adequate managerial capabilities. This suggests that family firms managed by founding generations with sufficient capabilities are able to undertake strategic renewal during the COVID-19 as compared to later generation managed family businesses.

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FIGURE

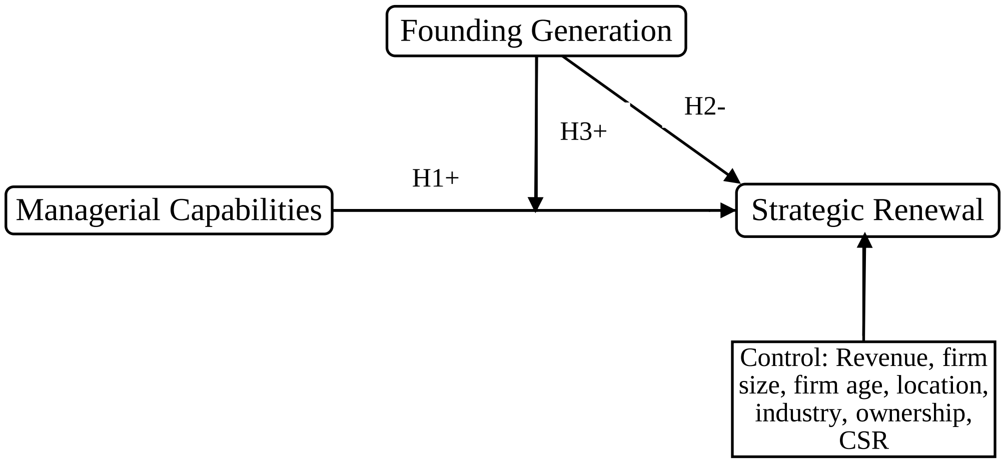

Figure 1. Research Model

TABLES

Table 1: Correlations and summary statistics

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Strategic renewal	1														
2. Revenue	0.16**	1													
3. Firm size	0.09**	0.08**	1												
4. Firm age	0.00	0.02	0.50**	1											
5. Germany (d)	0.00	0.02	0.02	0.14**	1										
6. Spain (d)	0.03	-0.03	0.04	0.08**	-0.22**	1									
7. Manufacturing (d)	0.03	0.05	0.22**	0.23**	0.13**	0.01	1								
8. Construction (d)	-0.10**	0.00	-0.01	-0.03	0.00	-0.02	-0.17**	1							
9. Wholesale (d)	-0.01	-0.01	0.01	0.06**	-0.04*	-0.02	-0.22**	-0.12**	1						
10.Services (d)	0.04	-0.05*	-0.18**	-0.23**	-0.04*	0.00	-0.57**	-0.30**	-0.38**	1					
11.Primary (d)	-0.01	0.01	-0.04	0.02	-0.09**	0.04	-0.12**	-0.06**	-0.08**	-0.21**	1				
12.CSR	0.40**	0.09**	0.17**	0.06**	-0.20**	0.20**	-0.03	-0.04	-0.01	0.02	0.09**	1			
13.Ownership	-0.04	-0.03	-0.04*	0.08**	-0.03	-0.02	0.05*	0.01	0.05*	-0.09**	0.00	-0.01	1		
14.Managerial capabilities	0.25**	0.03*	0.22**	0.06**	-0.04	0.05*	0.02	-0.04	0.03	0.01	-0.05*	0.23**	0.07	1	
15.Founding generation	0.00	-0.02	-0.33**	-0.59**	-0.07**	-0.14**	-0.20**	0.02	-0.05*	0.21**	-0.04*	-0.09**	-0.05**	-0.06*	1
Mean	3.04	1.66	3.99	3.48	0.18	0.18	0.25	0.08	0.13	0.50	0.04	2.73	4.50	4.13	0.45
SD	0.84	1.12	2.08	0.86	0.38	0.38	0.43	0.28	0.33	0.50	0.20	1.11	0.30	0.65	0.50
Min	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.10	1.00	0.00
Max	5.00	6.00	12.21	6.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	5.00	4.61	5.00	1.00

d = dummy variable; standard errors in parentheses
**p < .05. ***p < .01.

Table 2: Effect Managerial Capabilities and Generation in Control on Strategic Renewal

Variable	Model 1	Model 2	Model 3
Revenue	0.09***	0.09***	0.09***
	(0.01)	(0.01)	(0.01)
Firm size	0.01	-0.00	-0.00
	(0.01)	(0.01)	(0.01)
Firm age	-0.05**	-0.03	-0.03
	(0.02)	(0.03)	(0.03)
Germany (d)	0.14***	0.14***	0.14***
	(0.05)	(0.04)	(0.04)
Spain (d)	-0.08*	-0.08*	-0.07*
	(0.04)	(0.04)	(0.04)
Manufacturing (d)	0.17*	0.13	0.13
	(0.09)	(0.09)	(0.09)
Construction (d)	-0.12	-0.15	-0.15
	(0.10)	(0.10)	(0.10)
Wholesale (d)	0.13	0.08	0.08
	(0.09)	(0.09)	(0.09)
Services (d)	0.15*	0.10	0.10
	(0.08)	(0.08)	(0.08)
CSR	0.30***	0.28***	0.28***
	(0.02)	(0.02)	(0.02)
Ownership	-0.08	-0.12**	-0.12**
	(0.06)	(0.05)	(0.05)
Managerial capabilities		0.22***	0.17***
		(0.03)	(0.03)
Founding generation (d)		0.04	-0.44**
		(0.04)	(0.21)
Managerial capabilities*founding generation			0.12**
			(0.05)
_cons	2.43***	1.77***	1.99***
	(0.27)	(0.28)	(0.30)
N	2130	2130	2130
R	0.19	0.22	0.22

d = dummy variable; standard errors in parentheses

*p < .10. **p < .05. ***p < .01.

Appendix

No.	**Strategic Renewal / Pivoting Strategy.** Adopted from Klammer et al. (2017). Question: To what extent are the following important to your firm in responding to the COVID-19? Response scale ranges from 1 (completely-rejected the strategy) to 5 (strongly-engaged with this strategy)
1.	Explored new revenue generating products and services to offer during the COVID Crisis
2.	Encouraged revenue generating ideas from the next generation of family business members
3.	Developed new ideas quickly and cheaply that are in high demand during the crisis
4.	Sought Opportunities to extend existing capabilities into new markets
5.	Invested in new start-ups that are in market demand during the crisis
6.	Partnered with customers, suppliers, and/or other companies to supply revenue generating products/services in demand during the crisis
7.	Invested in new ideas, products and services
	Managerial Capabilities. The items were adopted and adjusted from *Lee et al. (2013).* Question: To what extent do you agree with the following statements? Response scale ranges from 1 (strongly-disagree) to 5 (strongly-agree)
8.	Top management team provides good leadership during the COVID-19
9.	Our managers are monitoring the workload of our team and help them to address the stress of the COVID-19 situation
10.	Top management team think and act to ensure that our organization is ahead of the challenges that COVID-19 situation is creating.
11.	Our managers and employees are learning every day to solve problems and moving forward during the COVID-19 situation
	Generation. What is the generation that currently manages the firm?
12.	Generation 1
13.	Generation 2
14.	Generation 3
15.	Generation 4
16.	Generation 5 and Subsequent
	Corporate Social Responsibility (CSR): Adopted and adjusted from Martínez and Del Bosque (2013). Question: Indicate how your family business is responding to the COVID-19 disruption. Response scale ranges from 1 (completely-rejected the strategy) to 5 (strongly-engaged with this strategy)
17.	Voluntarily produced non-revenue generating products/services needed for the crisis as a community service
18.	The family firm made its human resources available to the local community to help during the crisis
19.	Use family business physical resources to support the community needs during the crisis