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Masters of disasters? Challenges and opportunities for SMEs in times of crisis

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ABSTRACT

Small and medium-sized enterprises (SMEs) are the backbone of every economy. So, when an external crisis jeopardizes markets, such as the recent COVID-19 outbreak, SMEs are hit with great force. Their so-called liability of smallness, a lack of resources that would shield them from outside shocks, worsens the situation. This manuscript conducts a literature study on 69 manuscripts that studied SMEs in previous crises and proposes ways to overcome economic downturns in the areas of finance, strategy and the institutional environment. The paper finds a “strategy/funding chicken-and-egg-problem” and proposes an effectual world view when dealing with situations of great uncertainty.

1. Introduction

The COVID-19 crisis, only a few months old at the time of preparing this manuscript, already has had a devastating effect on the global economy. As of April 23, 2020, 26.5 million jobs were lost in the US alone (Lambert, 2020). So far, global stocks have seen a downturn of at least 25%. Goldman Sachs predicts the US Gross Domestic Product to shrink 24% in the second quarter of 2020 and forecasts a major contraction in manufacturing, with reduced domestic demand for non-food goods, reduced foreign demand for US goods exports, supply-chain disruptions and plant closures (Reinicke, 2020). In response, governments around the world released massive stimulus packages. The US so far approved $2 trillion to combat the economic downturn (Emma & Scholtes, 2020) and EU finance ministers recently approved €500 billion in stimulus measures (Riley, 2020).

Small and medium sized companies (SMEs), in most countries defined as organizations with less than 250 employees (OECD, 2005), are the backbone of every economy across the globe. In the US, SMEs make up 99.7 percent of U.S. employer firms and create 49.2 percent of jobs in the private sector (US Small Business Administration, 2012). SMEs drive innovation and competitiveness and account for 44 percent of U.S. economic activity (US Small Business Administration 2019). So, a suffering economy largely means suffering SMEs and their employees.

This manuscript attempts to outline a way for SMEs to overcome the current COVID-19 crisis. It is researched what tactics and strategies can be applied and how these are impacted by other market players, in particular financing institutions and governments. In order to achieve this goal, a literature study is conducted that identifies 69 manuscripts and covers how SMEs dealt with previous crises and disasters.

In the next section, common characteristics of SMEs are discussed that make them particularly vulnerable to external shocks and at the same time can be advantageous in such situations. Thereafter, the literature study is introduced, and the findings presented. The paper concludes with a discussion section that interprets the results and proposes avenues for future research.

2. Characteristics of SMEs

SMEs face a liability of smallness (Freeman, Carroll, & Hannan, 1983). This means that the smaller the firm the less resources it typically controls, which makes it more vulnerable to internal and external events, such as a critical employee quitting his/her job, a decline of financing options, a reduction of demand due to a competitor entering the market, or, in the case of this manuscript, a crisis hitting the global economy.

The liability of smallness often coincides with a liability of newness (Freeman et al., 1983). According to Stinchcombe (1965), new organizations suffer a greater risk of failure than older organizations, because they lack established business models, depend on the cooperation of strangers and have low levels of legitimacy. The liability of newness points to startup companies as a special form of SMEs.

Despite these liabilities, SMEs also have certain characteristics that could help them in times of crisis. Given their smaller size, they tend to be rather flexible when opportunities or threats arise in their environment. Further, the smaller the organization, the closer the decision-makers are to their customers and other stakeholders (Eggers, Hansen, & Davis, 2012). This in turn can provide them with valuable market information that can be helpful when reacting to crises.
3. Literature study

In order to shed more light on how SMEs deal with times of crisis, a literature study was performed. Google Scholar was searched for the following keywords and their combinations: 1) SME(s), small firm(s), 2) crisis, hard economic times, disaster(s). Paper must have been published in peer reviewed journals. In total, the search revealed 93 manuscripts. After excluding papers that interpret crisis as organizational, internal crisis, for example caused by succession in family firms, 69 papers remained in the pool and were further analyzed.

Table 1 shows the business area covered, type of crisis and geographic scope of the manuscripts. Most of the papers (50.7%) cover financial aspects for SMEs during crises. By far the most studies deal with the 2007–08 Global Financial Crisis (81.2%) and are focused on European countries (75.4%). A full list of papers can be found in the appendix of this manuscript.

The section below is organized in the three business areas discovered in the literature study: finance, strategy and strategic orientations and the institutional environment.

3.1. Finance

The first area, finance, deals with the most obvious consequence of a crisis: the lack of funding, typically caused by lower revenues and/or stricter investment policies. Manuscripts in this area investigate how financial indicators of SMEs such as asset structure, debt ratio, leverage, profitability, liquidity and creditworthiness change during a crisis (e.g., Balios, Daskalakis, Eriotis, & Vasiliou, 2016; Lisboa, 2017; Duarte, Gama, & Gulumhussen, 2018). Further differences of such financial indicators between small and large firms (Kudlyak & Sanchez, 2017; Lisboa, 2017) as well as between younger and older SMEs (Lisboa, 2017; Serrasqueiro et al., 2018) are studied.

In addition, authors analyze change in debt financing before, during and after crises (e.g., Kim, Tesar, & Zhang, 2015; Brown & Lee, 2019). Along these lines, usage and effects of trade credits are studied quite extensively as well (e.g., Carbo-Valverde et al., 2016; McGuinness & Hogan, 2016; Bussoli & Marino, 2018). Another area covers different effects of financing programs in SMEs (Briozzo & Cardone-Riportella, 2016), also in developed and developing countries (Harrison & Baldock, 2015).

Regarding the latter, a study by Piette and Zachary (2015) shows that banks perceive SMEs as presenting a higher risk during crises, which in turn explains tighter credit conditions. This, however, seems to apply mainly to SMEs which were not part of the existing corporate clientele pre-crisis. Risk perceptions can be triggered by innovative moves. In this regard Lee, Sameen, and Cowling (2015) find that innovative SMEs have more problems accessing finance during crises. They show that while financing worsened in the crisis for innovative and non-innovative SMEs, innovative firms have done relatively worse and are particularly likely to face absolute credit rationing.

3.2. Strategic Orientations and Strategy

Simón-Moya, Revuelto-Taboada, and Ribeiro-Soriano (2016) find that ventures that are based on market opportunity have better survival chances during times of crisis than those that were started out of necessity. Opportunity based management is associated with the concept of entrepreneurial orientation (EO), which consists of the dimensions innovativeness, proactiveness and consequently the willingness to take risks (e.g., Covin & Lumpkin, 2011). Several authors reveal a positive influence of EO, hard economic times, disaster(s). Paper must have been published in peer reviewed journals. In total, the search revealed 93 manuscripts. After excluding papers that interpret crisis as organizational, internal crisis, for example caused by succession in family firms, 69 papers remained in the pool and were further analyzed.

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3.2. Strategic Orientations and Strategy

Simón-Moya, Revuelto-Taboada, and Ribeiro-Soriano (2016) find
Literature Study.

Author(s), Year | Business area | Crisis | Country | Findings
--- | --- | --- | --- | ---
Armstrong et al. 2013 | Finance | 2007–08 Global Financial Crisis | UK | The vast majority of high growth SMEs rely strongly on debt-based finance for their funding, not equity finance. High growth SMEs are much less likely to seek finance for working capital purposes but are no more likely to seek finance to invest in R&D than less rapidly growing SMEs.

Barron et al. 2012 | Strategy | 2007–08 Global Financial Crisis | France, Sweden, UK | Monitoring of political initiatives by SMEs in response to the recession varied in accordance with the supranational political settings. SMEs across all three countries drew on similarly wide sources of information when monitoring the impact of political initiatives. SME managers in the UK relied heavily on official government sources when gathering intelligence on attempts to alleviate the recession’s effects.

Barron et al. 2012 | Finance | 2007–08 Global Financial Crisis | Greece | SMEs develop alternative marketing strategies, innovative tactics and new concepts in order to survive.

Briozzo and Cardone-Riportella 2016 | Finance | Variety of crises and disasters | Spain | SMEs are more likely to use informal lending or loan from other companies but there is no evidence that bank-constrained SMEs apply for, or use, capital finance. Smaller, less capitalized cooperative banks are repeatedly more likely than their IC counterparts to refuse or condition the supply of new bank loans. There is strong evidence of a negative relationship between the diffusion of financial market orientation and the capability of ICs to access new bank credit, which is particularly strong in the Italian IC context.

Bussoli and Marino 2018 | Finance | 2007–08 Global Financial Crisis | Europe | SMEs with a high probability of insolvency use trade credit more extensively. Unconstrained firms are more likely to seek finance to invest in R&D than less rapidly growing SMEs.

Carbo‐Valverde et al. 2016 | Finance | 2007–08 Global Financial Crisis | Spain | SMEs are more likely to use informal lending or loan from other companies but there is no evidence that bank-constrained SMEs apply for, or use, capital finance. Smaller, less capitalized cooperative banks are repeatedly more likely than their IC counterparts to refuse or condition the supply of new bank loans. There is strong evidence of a negative relationship between the diffusion of financial market orientation and the capability of ICs to access new bank credit, which is particularly strong in the Italian IC context.

Castellani 2018 | Finance | 2007–08 Global Financial Crisis | Italy | SMEs strategic position seems to affect the composition of their IC portfolio. While SMEs seem to care about the diversification of their IC portfolio, they do not manage it in a coherent and strategically beneficial way.

Cipoll et al. 2014 | Strategy | 2007–08 Global Financial Crisis | Greece | This approach to manage IC is characterized by firm-specific factors, but not by firm’s age, size or their degree of internationalization.

Cioppi et al., 2014 | Strategic Orientations | 2007–08 Global Financial Crisis | Italy | Important is an SME's ability to react with proactive strategies to a crisis.
| Author(s), Year | Business area | Crisis | Country | Findings |
|----------------|---------------|--------|---------|----------|
| Cornille et al., 2019 | Strategy | 2007–08 Global Financial Crisis | Belgium | SMEs borrowing money from pre-crisis financially less healthy banks were significantly more likely to be affected by a credit constraint and, in turn, to adjust their labor input downwards than pre-crisis clients of more healthy banks. Credit constraints have been essentially detrimental for employment among SMEs experiencing a negative demand shock or facing strong product market competition. In terms of human resources management, credit constraints are not only found to foster employment adjustment at the extensive margin but also to increase the use of temporary layoff allowances for economic reasons. |
| Costa et al., 2014 | Finance | 2007–08 Global Financial Crisis | Portugal | For the time period 2009-2011 an increasing trend on the average debt maturity is found. Intermediate quality firms choose to issue more long-term debt while high quality firms tend to issue more short-term debt. Smaller firms tend to use debt of shorter maturities. Firms affected by higher tax rates have longer debt maturities. Firms with more growth opportunities are using more short-term debt. |
| Cowling et al., 2016 | Finance | 2007–08 Global Financial Crisis | UK | Older firms and those with a higher risk rating, and a record of financial delinquency, were more likely to have a demand for external finance. The opposite was true for women-led businesses and firms with positive profits. In general finance was more readily available to olders firms post-GFC, but banks were very unwilling to advance money to firms with a high-risk rating or a record of any financial delinquency. |
| Cowling et al., 2018 | Strategy | 2007–08 Global Financial Crisis | UK | Entrepreneurial experience did not have any substantive effects on small business performance. The severity of the crisis meant that previous entrepreneurial experiences had little value in this unique and uncertain environment. However, young firms still accounted for a disproportionately high share of growth, especially among the fastest growing firms. |
| D’Amato, 2019b | Finance | 2007–08 Global Financial Crisis | Italy | The financial crisis has negatively affected SMEs’ financial leverage, as the total debt ratio significantly declines in the sample period. Also, the financial crisis negatively impacted trade credit, given that it does not substitute for the reduction of credit from financial institutions. Finally, the impact of capital structure determinants significantly changed during and after the crisis compared to the pre-crisis levels. Compared to the pre-crisis period, profitability, profit volatility and liquidity are the main determinants of the total debt ratio during and after the crisis. |
| D’Amato, 2019a | Finance | 2007–08 Global Financial Crisis | Italy | Credit supply shocks negatively impacted SMEs’ leverage. During and after the crisis, SMEs significantly decreased their leverage, particularly their short-term debt exposure, relative to the pre-crisis period. As a result, the short-term debt channel is more sensitive to credit conditions than the long-term debt channel. |
| Deakin et al., 2015 | Finance | 2007–08 Global Financial Crisis | New Zealand | The study finds reluctance to undertake a search for external equity and shows evidence of discouraged borrowing and discouraged grant-based applications on the demand-side. The comparatively stable economic environment in New Zealand has not operated in favor of technology-based small firms. |
| Degryse et al., 2018 | Finance | 2007–08 Global Financial Crisis | UK | Before the crisis, banks’ local financial condition did not influence credit availability irrespective of the functional distance (i.e., the distance between bank branch and bank headquarters). However, during the crisis, SMEs with banks that have stronger financial conditions faced greater credit availability when the functional distance is close. Results point to a “flight to headquarters” effect during the financial crisis. |
| Demirgüç-Kunt et al., 2020 | Finance | 2007–08 Global Financial Crisis | Global | Leveraging and maturity reduction were particularly significant for non-listed firms, including both SMEs as well as large non-listed companies. For SMEs, these effects were larger in countries with less efficient legal systems, weaker information sharing mechanisms, less developed financial sectors, and with more restrictions on bank entry. In contrast, there is weaker evidence of a significant decline in leverage and debt maturity among listed companies which are typically much larger than other firms and likely to benefit from the “spare tire” of easier access to capital market financing. |
| Dias et al., 2020 | Strategic Orientations | 2007–08 Global Financial Crisis | Portugal | During the crisis SMEs were more objective and effective in the use of their resources and capabilities. During the crisis entrepreneurship, innovation capacity, accumulation of knowledge and partnerships have an impact on the capability of developing new products. Before the crisis only entrepreneurship and knowledge accumulation have affected this capability. The study finds a positive relation between collateral and default, and a negative relation between guarantees and default. Further, a negative relation between the joint influence of collateral and high credit score, and a positive relation between the joint influence of collateral and low credit score and default. There is a negative relation between the joint influence of guarantees and high credit score. Findings are relevant for SME policies aimed at facilitating access to credit, reducing the cost of borrowing, and decreasing default; risk (continued on next page) |
management of banks; and the application of theories of financial economics in the context of a financial crisis.

SMEs had extended their outsourcing in almost every area of operation, such as human resource management (HRM), IT and peripheral tasks. More SMEs gave cost-reduction as a reason for outsourcing and more respondents expressed a positive experience of outsourcing.

A combination of entrepreneurial orientation and customer orientation is especially valuable in times of crisis since turbulent market environments and a limited availability of financial resources favor lean and flexible marketing efforts. Combining both orientations, however, requires at least a certain amount of resources, a challenge in hard economic times.

Financial strength and competitive advantage of companies as well as managers' perceptions regarding environmental uncertainty and expectations about the future of the crisis influence understanding and shape courses of action.

Any continued constraint in the supply of and effective demand for finance for the SME sector will have significant implications for the overall performance of economies in both developed and developing countries.

SMEs, in spite of their resource constraints and relatively weak market positions, display resilient market responsiveness. Effective crisis management of SMEs involve proactive business mindsets for sustainable growth and continuous expansions.

Entrepreneurs perceived firm relocation as a necessity, while, contrary to the existing literature, labor cost does not appear to have significantly influenced firm exit from Greece. Demand and access to external finance emerged as major factors. Important among elements that attracted businesspeople to Bulgaria were low taxation and geographical proximity to Greece.

While in the pre-crisis period many Greek businesspeople viewed relocation to Bulgaria as an entrepreneurial opportunity for firm expansion, since 2007 relocation has been perceived as a necessity for the vast majority of Greek entrepreneurs in order to stay in business. Evidence is provided for a clear division between businesspeople, managing strong, and medium-sized firms and seeking business growth and improved competitiveness, and entrepreneurs who own small, unproductive enterprises and who made efforts to maintain business without seeking quality improvement.

Small firms with more short-term foreign debt were more likely to declare bankruptcy. Conditional on surviving the crisis, small firms that had more short-term foreign debt experienced larger declines in sales. The exit (bankruptcy) margin accounts for a large fraction of small firms' adjustment during the crisis.

Despite the stronger standards used by banks when granting credit, French SMEs do not appear to have been strongly affected by credit rationing since 2008. This result goes against the common view that SMEs suffered from a strong credit restriction during the crisis.

Large firms' short-term debt and sales contracted relatively more than those of small firms. During 2007–09 low financially dependent firms suffered more than high financially dependent firms. These results favor the view that a tightening of a financial or collateral constraint might not be a good representation of the 2007–09 crisis.

Higher debt burdens have significant negative effects on all measures of firm performance, in particular investment, employment and indicators of financial distress. The effects are greatest for sectors and enterprises most reliant on domestic demand which collapsed following the crisis. The effects are also strongest for enterprises that were in the mid-lifecycle, gearing phase, prior to the crisis.

In order to survive in turbulent environments, SMEs are required to quickly shift their businesses and strategic focuses, become involved in new businesses, be flexible and make innovative moves. Innovative firms find it harder to access finance than other firms during crisis. When considering absolute credit rationing, innovative firms started at an absolute disadvantage compared to their non-innovative peers. While financing worsened in the crisis for both types of firms, innovative firms have done relatively worse in this respect and are particularly likely to face absolute credit rationing.

Environmental and organizational factors impact corporate entrepreneurship which in turn influences firm performance in terms of both financial and non-financial aspects. Significantly, non-financial performance was found to influence financial outcomes. Corporate entrepreneurship is important not only for wealth creation but also for efficient processes and operations, all of which reflect on overall performance.

The study confirms the vulnerability of the furniture and agricultural sectors to the crisis. Trends in terms of firms' cost, asset and return are identified.

(continued on next page)
| Author(s), Year | Business area | Crisis | Country | Findings |
|----------------|---------------|--------|---------|----------|
| Lisboa, 2017   | Finance       | 2007–08 Global Financial Crisis | Portugal | Size, profitability, asset structure, size, cash flows, liquidity, and age are important determinants of how SMEs responded to the crisis. Higher levels of retained earnings were positively related to profitability and liquidity. Lower levels of retained earnings were positively related to the amount of debt. Higher levels of cash flow were negatively related to both liquidity and profitability. Lower levels of cash flow were positively related to both liquidity and profitability. |
| Marino et al., 2008 | Strategic Orientations | 1997 Asian Financial Crisis | Indonesia | Environmental shock type positively influences SME performance in financial crisis by improving creativity and initiating new product generations. |
| McGuinness and Pagan, 2016 | Finance | 2007–08 Global Financial Crisis | Romania and Cyprus | Usage of a balanced scorecard that models risk and crisis management shows a significant improvement of financial performance. |
| Mihai Yiannaki et al., 2012 | Finance | 2007–08 Global Financial Crisis | Romania and Cyprus | Usage of a balanced scorecard that models risk and crisis management shows a significant improvement of financial performance. |
| Morrish and Jones, 2020 | Strategic Orientations | 2010 and 2011 Christchurch Earthquakes | New Zealand | Development of a crisis strategic planning framework for SMEs is developed by identifying environmental turbulences, developing leadership and capability analyses and multiple strategy development phases. The framework helps with simple strategic tools to improve responsiveness and preparedness. |
| Piette and Zachary, 2015 | Finance | 2007–08 Global Financial Crisis | Belgium | SMEs that are confronted with an economic downturn use an MO approach that is both proactive and reactive. Performance is revealed. |
| Proença et al., 2014 | Finance | 2007–08 Global Financial Crisis | Portugal | The study categorizes resilient and less resilient SMEs in terms of their financial performance and identifies what strategies differentiate them. Resilient firms showed better short-term crisis management through higher operational flexibility, while less resilient firms showed lower ability to access external financial sources. |
| Sainsis et al., 2016 | Strategy | 2007–08 Global Financial Crisis | Greece | SMEs transformed environmental challenges into opportunities by enhancing sustainability through environmental initiatives and improving customer value and acceptance risk. |
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Table A1 (continued)

| Author(s), Year        | Business area | Crisis                          | Country         | Findings                                                                                                                                                                                                 |
|------------------------|---------------|---------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Serrasqueiro et al., 2018 | Finance       | 2007–08 Global Financial Crisis | Portugal        | Greek SMEs continue their quality journey giving greater emphasis on cultural dimensions. The low rates recognized for quality tools and processes implemented support the perception that ISO certified SMEs reinforce TQM implementation but not to such a level as to contribute to a continuous improvement process. SME growth is stimulated by cash flow and gross domestic product and restricted by debt, firm size, age of the firm and interest rate. In the period of 2008–12, cash flow had less importance, while debt was found to have a stronger negative effect on SME growth, compared with the pre-crisis period. Financial institutions, local governance and SMEs are interconnected in the disaster risk management model. Each party has obligations in conducting preparedness of disaster and risk protection procedures for disaster risk management. There is still a very low risk perception among SMEs. |
| Setyawanto et al., 2017 | Institutional Environment | Variety of crises and disasters | Indonesia | New firms have a greater likelihood of surviving during crisis periods than they do during growth periods. Gaps in survival likelihood between opportunity and necessity entrepreneurship are bigger during times of crisis than they are during growth periods. |
| Simón-Moya et al., 2016 | Strategy      | 2007–08 Global Financial Crisis | Spain           | The study finds a substantial variation in the maturity structure of long-term debt. Firms which at the start of the crisis had a larger part of their long-term debt maturing within the next year experienced a significantly larger drop in investments in 2009. This effect is driven by firms which are ex ante more likely to be financially constrained. |
| Soininen et al., 2012  | Strategic Orientations | 2007–08 Global Financial Crisis | Finland         | The study identifies seven types of restructuring projects to help SMEs navigate through crises. A conceptual framework is proposed. |
| Ter Wengel and Rodriguez, 2006 | Institutional Environment | 1997 Asian Financial Crisis | Indonesia       | The credit guarantee system was effective in protecting the economy from collapsing. The system was so generous that most SMEs wanted it to remain unchanged. Results indicate that the independent variables - financial crisis, profitability, size, tangibility and industry affiliation - to various degrees explain changes in short-term debt (STD) and long-term debt (LTD) ratios. The findings indicate that the sampled SMEs tended to rely more on STD and LTD during the crisis period. Investments of private SMEs declined significantly both during and after the financial crisis. Investments become less dependent on internal finance than on external finance during the crisis period. However, the impacts of the two financing sources on firm investment during the post-crisis period do not differ. The findings suggest that borrowing from banks remained critical in determining the investments of private SMEs during the crisis. |
| Vargo and Seville, 2011 | Strategic Orientations | Variety of crises and disasters | New Zealand     | A framework for SMEs and technologies for use in a disaster response supply chain (DRSC) is crafted. Findings show that despite their vulnerability, SMEs have a greater, active ancillary role to play today in disaster recovery than before. SMEs can now either donate material, information, finance and personnel or offer these at a price in DRSC to promote business continuity and a quick return to normalcy. |
| Vermoesen et al., 2013 | Finance       | 2007–08 Global Financial Crisis | Belgium         | The study reveals seven types of restructuring projects to help SMEs navigate through crises. A conceptual framework is proposed. |
| Vrečko and Šivec, 2013 | Strategy      | 2007–08 Global Financial Crisis | Slovenia        | The credit guarantee system was effective in protecting the economy from collapsing. The system was so generous that most SMEs wanted it to remain unchanged. Results indicate that the independent variables - financial crisis, profitability, size, tangibility and industry affiliation - to various degrees explain changes in short-term debt (STD) and long-term debt (LTD) ratios. The findings indicate that the sampled SMEs tended to rely more on STD and LTD during the crisis period. Investments of private SMEs declined significantly both during and after the financial crisis. Investments become less dependent on internal finance than on external finance during the crisis period. However, the impacts of the two financing sources on firm investment during the post-crisis period do not differ. The findings suggest that borrowing from banks remained critical in determining the investments of private SMEs during the crisis. |
| Yamori, 2015           | Finance       | 2007–08 Global Financial Crisis | Japan           | The credit guarantee system was effective in protecting the economy from collapsing. The system was so generous that most SMEs wanted it to remain unchanged. Results indicate that the independent variables - financial crisis, profitability, size, tangibility and industry affiliation - to various degrees explain changes in short-term debt (STD) and long-term debt (LTD) ratios. The findings indicate that the sampled SMEs tended to rely more on STD and LTD during the crisis period. Investments of private SMEs declined significantly both during and after the financial crisis. Investments become less dependent on internal finance than on external finance during the crisis period. However, the impacts of the two financing sources on firm investment during the post-crisis period do not differ. The findings suggest that borrowing from banks remained critical in determining the investments of private SMEs during the crisis. |
| Yazdanfar et al., 2019 | Finance       | 2007–08 Global Financial Crisis | Sweden          | The credit guarantee system was effective in protecting the economy from collapsing. The system was so generous that most SMEs wanted it to remain unchanged. Results indicate that the independent variables - financial crisis, profitability, size, tangibility and industry affiliation - to various degrees explain changes in short-term debt (STD) and long-term debt (LTD) ratios. The findings indicate that the sampled SMEs tended to rely more on STD and LTD during the crisis period. Investments of private SMEs declined significantly both during and after the financial crisis. Investments become less dependent on internal finance than on external finance during the crisis period. However, the impacts of the two financing sources on firm investment during the post-crisis period do not differ. The findings suggest that borrowing from banks remained critical in determining the investments of private SMEs during the crisis. |
| Zubair et al., 2020     | Finance       | 2007–08 Global Financial Crisis | The Netherlands  | The credit guarantee system was effective in protecting the economy from collapsing. The system was so generous that most SMEs wanted it to remain unchanged. Results indicate that the independent variables - financial crisis, profitability, size, tangibility and industry affiliation - to various degrees explain changes in short-term debt (STD) and long-term debt (LTD) ratios. The findings indicate that the sampled SMEs tended to rely more on STD and LTD during the crisis period. Investments of private SMEs declined significantly both during and after the financial crisis. Investments become less dependent on internal finance than on external finance during the crisis period. However, the impacts of the two financing sources on firm investment during the post-crisis period do not differ. The findings suggest that borrowing from banks remained critical in determining the investments of private SMEs during the crisis. |
| Zvikaramba et al., 2020 | Institutional Environment | Variety of crises and disasters | Global          | A framework for SMEs and technologies for use in a disaster response supply chain (DRSC) is crafted. Findings show that despite their vulnerability, SMEs have a greater, active ancillary role to play today in disaster recovery than before. SMEs can now either donate material, information, finance and personnel or offer these at a price in DRSC to promote business continuity and a quick return to normalcy. |
greater likelihood of surviving during crisis periods than they do during growth periods. Cowling et al. (2018) show that among all firms studied, young firms account for a disproportionately high share of growth during a crisis.

3.3. Institutional environment

Finally, a few manuscripts take a macro-economic viewpoint. These papers analyze how governments can assist SMEs during crises (Ter Wengel & Rodriguez, 2006; Pathak & Ahmad, 2018) and potential benefits of an interplay of financial institutions, local governance and SMEs (Setyawan, Isa, Wajdi, & Syamsudin, 2017; Zvikaramba, Kruglikov, Zimucha, & Chinkadzwa, 2020). Kapitsinis (2017; 2019) analyzes the effects of SME relocations during economic downturns.

4. Discussion

In general, small firms face a liability of smallness whereas crises and disasters create additional resource availability and liquidity problems for SMEs. Customers reduce or completely stop spending and financiers become more careful in terms of their investments. Some manuscripts discuss ways out of this problem, for example by using trade credits and analyzing different financing programs. At the same time, a time of crisis can create market opportunities that can best be addressed with innovative and proactive postures. An SME’s potential for more flexible decision-making and closeness to its customer base is beneficial in this regard.

Several studies reveal an interconnectedness between finance and strategy, in particular EO and MO. Being innovative and creating new offerings that go beyond expressed customers’ needs demands the availability of financial resources. This is either because of the higher costs associated with creating such offerings or because a limited amount of resources increases the risk perception of managers and entrepreneurs. If only a limited amount of resources is available, they might consider it even more risky to invest those into projects with an uncertain outcome. The same is true for finance institutions that seem to prefer less risky, that is less innovative investments, in times of crisis (Lee et al., 2015). The positive effects of financial resource availability on EO and ultimately firm performance has been analyzed in additional manuscripts that did not have a crisis focus (Eggers, Kraus, Hughes, Laraway, & Sncerski, 2013; Hughes, Eggers, Kraus, & Hughes, 2015). Consequently, SMEs face the dilemma that EO and MO have the potential to increase performance and help survival in times of crisis, but that crises and disasters limit the amount of resources needed to execute such strategies. For SMEs, there apparently is a strategy/funding chicken-and-egg-problem that calls for additional research. After all, crises can create opportunities for SMEs.

Appendix

(See Table A1)

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