



Vaasan yliopisto
UNIVERSITY OF VAASA

OSUVA Open
Science

This is a self-archived – parallel published version of this article in the publication archive of the University of Vaasa. It might differ from the original.

Organizational Resilience, Innovation Capabilities, and SME Performance in High-Risk Contexts

Author(s): Zahoor, Nadia; Arslan, Ahmad; Miri, Donman; Khan, Zaheer

Title: Organizational Resilience, Innovation Capabilities, and SME Performance in High-Risk Contexts

Year: 2024

Version: Accepted manuscript

Copyright ©2024 Springer. This is a post-peer-review, pre-copyedit version of an article published in *Business and Management in Asia: Disruption and Change*. The final authenticated version is available online at: <https://doi.org/10.1007/978-981-99-9371-0>

Please cite the original version:

Zahoor, N., Arslan, A., Miri, D. & Khan, Z. (2024). Organizational Resilience, Innovation Capabilities, and SME Performance in High-Risk Contexts. In T. Endress & Y. F. Badir (Eds.), *Business and Management in Asia: Disruption and Change* (pp. 171-186) Springer. https://doi.org/10.1007/978-981-99-9371-0_11

Organizational Resilience, Innovation Capabilities, and SME Performance in High-Risk Contexts

Authors:

Nadia Zahoor (Queen Mary, University of London, UK & InnoLab, University of Vaasa, Finland, & Adnan Kassar School of Business, Lebanese American University, Lebanon. Email: n.zahoor@qmul.ac.uk)

Ahmad Arslan (Department of Marketing, Management & IB, University of Oulu, Finland & Innolab, University of Vaasa, Finland. Email: ahmad.arslan@oulu.fi.)

Domnan Miri (Teesside University Business School, Teesside University, UK. Email: d.miri@tees.ac.uk)

Zaheer Khan (University of Aberdeen, UK & InnoLab, University of Vaasa, Finland Email: zaheer.khan@abdn.ac.uk)

AAM version. Please cite this paper as:

Zahoor, N., Arslan, A., Miri, D., & Khan, Z. (2024). Organizational Resilience, Innovation Capabilities, and SME Performance in High-Risk Contexts. In: Endress, T., Badir, Y.F. (eds) *Business and Management in Asia: Disruption and Change* (pp. 171-186). Springer, Singapore. Available online at https://doi.org/10.1007/978-981-99-9371-0_11

Organizational Resilience, Innovation Capabilities, and Organizational Performance of SMEs in high-risk contexts

Abstract:

This chapter aims to establish a link between innovative capabilities and organizational performance of SMEs under the condition of organizational resilience, in relatively high-risk contexts such as emerging economies of Asia. By establishing links between the two distinct innovation capabilities—explorative and exploitative and organizational performance, the current book chapter contributes to the innovation literature by establishing the vital role of these capabilities for SMEs operating in a high-risk context to survive and improve their performance. Finally, our book chapter conceptualizes organizational resilience as a contingency factor for the utilization of explorative and exploitative innovation capabilities to enhance SMEs' organizational performance, in relatively high-risk contexts.

Keywords: Dynamic capabilities; explorative innovation; exploitative innovation; organizational performance; resilience; and SMEs.

1. Introduction

Small and medium-sized enterprises (SMEs) represent most businesses worldwide and significantly contribute to economic development and job creation (The World Bank, 2021). They account for over 90% of all businesses and generate 50% of employment worldwide. Particularly, as Asian countries are gaining prominence globally—SMEs are playing a vital role in the economic growth of these countries (Lopes de Sousa Jabbour *et al.*, 2020; Yang *et al.*, 2020). This suggests that SMEs in this region are critical for job creation, as well as economic development. With the growing importance of SMEs—they are forced to seek new ways (e.g., developing distinctive expertise and technology) to achieve a competitive advantage to compete with other industry players, particularly large firms (Saleem *et al.*, 2020; Shashi *et al.*, 2019; Velamuri & Liu, 2017). In this concern, prior studies have argued that innovation plays a critical role to survive and thrive in an increasingly competitive environment, especially for SMEs (Oura *et al.*, 2016; Rosenbusch *et al.*, 2011). Innovation offers SMEs the possibility to enhance the performance of their newly developed products (Najafi-Tavani *et al.*, 2018) and transform their resources into innovative offerings that are more attractive to customers (Mazzucchelli *et al.*, 2021; Singh *et al.*, 2022). Due to the importance of innovation for SMEs, a significant body of research has analyzed the relationship between innovation and organizational performance (e.g., Exposito & Sanchis-Llopis, 2018; Love & Roper, 2015; Rosenbusch *et al.*, 2011; Saridakis *et al.*, 2019).

Despite significant research on the impact of innovation on SMEs' performance in recent years, the existing studies have mainly considered innovation as the ability to gather information and create the knowledge needed to develop products and processes (Schoenherr & Swink, 2015; Zhang & Hartley, 2018), with relatively fewer efforts to distinguish between two distinct capabilities—explorative and exploitative innovation capabilities as suggested by March's (1991) seminal work. Explorative innovation capability refers to "*experimentation with new alternatives whose returns are uncertain, distant, and often negative*" whereas exploitative innovation capability relates to "*the refinement and extension of existing competencies, technologies, and paradigms*" (March, 1991, p. 85). Explorative innovation capability departs from existing skills and capabilities and is geared towards new customers and new markets, but exploitation innovation capability leverages existing knowledge to serve the needs of existing customers and markets (Ferreira *et al.*, 2020). Given the unique nature of explorative and exploitative innovation capabilities—their potential to influence organizational performance is different. Also, it should be highlighted that firms operating in high-risk environments experience challenges such as weak institutional systems, difficulties associated with financial system and foreign reserves, policy uncertainty, and higher levels of corruption, among others (e.g., Hanifah *et al.*, 2019; Khan *et al.*, 2023; Mei *et al.*, 2019; Zeng *et al.*, 2010). In a context mired by high volatility and risk, the specific role of explorative and exploitative innovation capabilities for SMEs is critical to be understood, as some prior studies have referred those innovative capabilities are an important way for

such SMEs to overcome external (including institutional) challenges and resource scarcity (Amankwah-Amoah *et al.*, 2019; Burhan *et al.*, 2021). Here, it is vital to stress that for SMEs operating in high risk and volatile environments, organizational resilience is a major factor that helps them overcome those risks, survive, and grow (Gölgeci *et al.*, 2020; Gölgeci & Kuivalainen, 2020).

In this book chapter, we aim to offer a conceptual discussion where explorative and exploitative capabilities are linked with organizational performance of SMEs under the condition of organizational resilience. According to the dynamic capability view (Teece *et al.*, 1997), explorative and exploitative innovation are vital dynamic capabilities that allow SMEs in a high-risk context to survive and improve their performance. While explorative capabilities enable organizations to explore new markets, technologies, and business models, exploitative capabilities focus on optimizing current operations, improving efficiency, and leveraging existing assets to generate value. To support organizational performance, a dynamic capability view suggests that organizations should invest in both explorative and exploitative capabilities. Further, the dynamic capability view emphasizes the importance of organizational resilience in supporting both explorative and exploitative innovation. By fostering adaptability, organizations can proactively identify and capitalize on new opportunities for explorative innovation. They can also quickly respond and adapt to feedback and insights gained through exploitative innovation, making necessary adjustments to improve efficiency and effectiveness.

By conceptualizing a link between the two distinct innovation capabilities—explorative and exploitative and organizational performance, this book chapter strengthens the innovation's understanding in both academic and practical contexts. The presented argumentation establishes that both explorative and exploitative innovation are vital dynamic capabilities that allow SMEs in a high-risk context to survive and improve their performance. Further, our book chapter specifically highlights organizational resilience as a contingency factor for the utilization of explorative and exploitative innovation capabilities to enhance SMEs' organizational performance.

The next section offers a literature review on the premise of explorative and exploitative capabilities and how they support organizational performance of SMEs. Further, we argue the critical role of organizational resilience to support the impact of explorative and exploitative capabilities on organizational performance of SMEs in turbulent environments. This discussion is followed by theoretical propositions addressing the conceptualization, innovation capabilities, organizational resilience, and organizational performance in the context of SMEs. After that implications, limitations, and future research directions are presented. Finally, the chapter concludes with the presentation of conclusions section.

2. Literature Review

2.1 Innovation As a Multi-Dimensional Concept

Innovation is an important organizational capability as it improves the sales, profits, and competing powers of organizations (Figueiredo *et al.*, 2020; Sulisty & Siyamtinah, 2016; Zahoor *et al.*, 2021). It is defined as “*a means of changing an organization, whether as a response to changes in its internal or external environment or as a preemptive action taken to influence an environment*” (Damanpour, 1991, p. 556). The seminal study of March (1991) suggests that innovation as a multidimensional and complex phenomenon, including explorative and exploitative innovation. This multidimensional conceptualization addresses whether innovation is designed for completely new customers or markets (i.e., explorative) or whether innovation addresses the needs of existing customers (i.e., exploitative) (Benner & Tushman, 2003). Specifically, explorative innovation relates to using new knowledge and developing new products, services, and processes for new markets or customers (Jansen *et al.*, 2006). It is captured by “*terms such as search, variation, risk-taking, experimentation, play, flexibility, discovery, and innovation*” (March, 1991, p. 71). In contrast, exploitative innovation concerns the use of existing knowledge and extending products, services, and processes for existing customers (Jansen *et al.*, 2006; Levinthal & March, 1993). It is captured by “*terms such as refinement, choice, production, efficiency, selection, implementation, and execution*” (March, 1991, p. 71). As explorative and exploitative innovation draws upon unique resources and processes, they might produce different output and impact organizational performance differently (O'Reilly & Tushman, 2013). In this concern, the scholars have called to uncover the differential implications of explorative and exploitative innovations as they do not carry the same levels of risks and require different investments (Khan *et al.*, 2019; Limaj & Bernroider, 2019; Zahoor *et al.*, 2021).

It is important to further stress that influences of innovation can be different for SMEs as compared to their larger counterparts (e.g., Dominguez, 2018; Zahoor *et al.*, 2021). For example, explorative innovation capability in SMEs can promote an entrepreneurial mindset among employees, empowering them to take calculated risks, think innovatively, and pursue new opportunities (Raymond *et al.*, 2020). It can help to assemble teams with diverse skills and expertise to foster cross-pollination of ideas and perspectives. Furthermore, exploitative innovation capability allows SMEs to seek and incorporate customer feedback to refine products, services, and user experiences. Due to their closed culture, SMEs can use exploitative capability to capture and document knowledge gained through experience and learning (Donbesuur *et al.*, 2023; Zahoor *et al.*, 2023). It encourages SMEs' employees to share best practices and lessons learned to drive efficiency and effectiveness (Limaj and Bernroider, 2019).

2.2 Dynamic Capability View and Innovation Capabilities

The dynamic capability view provides a valuable perspective of analyzing how firms achieve competitive advantage in changing market conditions (Teece *et al.*, 1997). The dynamic capability view asserts that a firm must possess ability to integrate, build, and reconfigure competencies to adjust to environmental changes (Teece, 2007). While scholars debate on the nature and characteristics of dynamic capabilities, the consensus view is that dynamic capabilities comprehend change creation and are influenced by market dynamism (Eisenhardt & Martin, 2000), are firm-specific (Amit & Schoemaker, 1993), are path-dependent and rooted in firm processes (Wang & Ahmed, 2007). To this end, explorative and exploitative innovation are dynamic capabilities that can play a vital role in addressing rapidly changing environments (Teece, 2014). In relatively risky emerging economies, explorative and exploitative innovation capabilities are vital for achieving competitive advantage due to lack of institutional support, resource scarcity and dynamic market conditions (Liu *et al.*, 2020).

Despite the organizational performance potential of explorative and exploitative innovation capabilities, SMEs in such countries are exposed to prolonged external shocks such as political upheavals, natural disasters (e.g., COVID-19), market dynamism (e.g., demand variability), political instability, and shortening product lifecycle (Cao & Shi, 2021; Liu *et al.*, 2019). SMEs that do not resist the storm of such changes fail and in many cases cease to exist (Shin *et al.*, 2015). In such dynamic environments, organizational resilience is a vital capability that allows SMEs to prepare for unexpected events, respond to disruptions, and recover from crises by maintaining continuity of operations and control over functions (Ortiz-de-Mandojana & Bansal, 2016; Zahoor *et al.*, 2022). Organizational resilience can allow SMEs to bounce back quickly from external shocks and respond to dynamic environmental signals and develop flexible resources to apply to a wide range of interchangeable alternatives (Li *et al.*, 2021; Purnomo *et al.*, 2021). As such, SMEs possessing organizational resilience can better utilize their explorative and exploitative innovation capabilities to improve organizational performance. Therefore, it can be argued that organizational resilience can (potentially) positively moderate (strengthen) the influences of two distinct capabilities—explorative and exploitative innovation capabilities on SMEs' organizational performance, particularly the ones operating in risky markets.

2.3 Innovation Capabilities, Organizational Resilience, and Organizational Performance in SMEs

Explorative innovation capability is defined as the ability to use new knowledge for the development of new products, processes, or services for new customers or markets (March, 1991). It requires the morphing of old knowledge with significantly new science to seek novel technological opportunities that are disruptive in nature (Ryan *et al.*, 2018). When SMEs engage in explorative innovation, they put more effort into planning new innovation activities that can increase the growth expectation of firms

(Hughes *et al.*, 2021). In this context, explorative innovation capability serves as a specialized asset for SMEs that is tacit in nature and can be a source of organizational performance (Wu & Peng, 2020). Explorative innovation capability allows SMEs to develop new products, processes, or services with improved technical specifications that can offer higher benefits to the customer over existing products in the markets (Kyriakopoulos *et al.*, 2016; Zahoor *et al.*, 2021). For example, Xero — a New Zealand-based company — offered cloud-based accounting software. This explorative innovation-based software provided SMEs with a user-friendly accounting platform that leverages cloud technology. This simplified financial management, automated tasks, and provided real-time insights to SMEs about their financial health. Thus, the focus of SMEs on explorative innovation capability can advance new ways to make use of their resources to seize new rents and improve organizational performance. Specifically, Asian SMEs often exhibit entrepreneurial attributes (e.g., risk-taking and proactiveness) that encourage these firms to engage in risky activities (Dubey *et al.*, 2020; Yang *et al.*, 2019). An example is Zoho, an Indian software company, that offers suite of cloud-based business applications for SMEs. This business software allows small businesses to explore integrated solutions for customer management, finance, HR, and more, improving efficiency and collaboration. Such SMEs are more likely to utilize explorative innovative capability to improve their competitive position by offering novel products/services and in turn providing novel benefits to customers. This can also allow SMEs to gain a first-mover advantage in their markets, which can consequently increase the market share and return on sales (Huang *et al.*, 2014; Zahoor *et al.*, 2022). Based on the above discussion, we propose that:

Proposition 1: Explorative innovation capability in SMEs positively influences organizational performance.

Exploitative innovation capability is based on the use of existing knowledge and resources to extend existing products and services for existing customers. This can allow SMEs to use their repetitive processes to reap the benefits of improvement in their products and continue making incremental improvements (Li *et al.*, 2011), which can allow SMEs to achieve superior performance. Moreover, exploitative innovation capability emphasizes process reliability and quality orientation (Limaj & Bernroider, 2019). This can allow SMEs to take initiatives for process improvement, which in turn can increase greater efficiency in innovation development (Saridakis *et al.*, 2019). An example is Patagonia, a small outdoor apparel company, that is focusing on exploitative innovation. By using recycled materials, reducing water consumption in manufacturing, and extending the lifespan of their clothing through recycling programs, they have improved their products which align with their mission and appeal to eco-conscious consumers. Although returns from exploitation innovation can be lower than those of explorative innovation—SMEs prefer exploitative innovation over less specific and distant outcomes of explorative innovation. As Cooper (1993) suggests, about 20% - 80% of R&D projects are unsuccessful due to higher risks. In this regard, exploitation reduces the risks and failures in the

production process by enhancing the preferences of SMEs for existing competencies that can improve not only product quality but also customer acceptance (Colclough *et al.*, 2019; Loon & Chik, 2019)—thereby increasing organizational performance. Particularly, Asian SMEs often suffer from liability of smallness, limited availability of resources, and lack of institutional support (Su *et al.*, 2020; Xiao *et al.*, 2020). This can restrict the R&D budget of such SMEs and encourage them to efficiently use their limited resources (Lopes de Sousa Jabbour *et al.*, 2020). Further, in the high-risk environment of Pakistan, exploitative innovation capability enables SMEs to invest in low-risk activities and utilize existing knowledge for innovation improvement and subsequent performance gains (Xiao *et al.*, 2020). In this sense, exploitative innovation capability can allow SMEs to utilize their existing knowledge for improving product offerings and achieving higher performance. Hence, we propose that:

Proposition 2: Exploitative innovation capability in SMEs positively influences organizational performance.

Organizational resilience is the ability of organizations to anticipate, avoid, bounce back, and adjust to external environmental shocks (Harries *et al.*, 2018). It is a path-dependent capability that “organizations develop by noticing and correcting for maladaptive tendencies that help them cope with unexpected circumstances” (Ortiz-de-Mandojana & Bansal, 2016, p. 1617). Organizational resilience is a vital operational level capability for SMEs as they are highly vulnerable to crisis times given their constrained financial and human resources (Eggers, 2020). An example is the outbreak of the COVID-19 pandemic that caused the risk of failure for SMEs due to decline of financing options, employee quitting jobs, reduction of customer demands, and decrease in economic growth (Amankwah-Amoah *et al.*, 2021; Brown & Cowling, 2021; Duarte Alonso *et al.*, 2020). The risk of failure is even greater amongst Asian SMEs operating in risky countries as lack of institutional support and resources to cope with dynamic changes (Asia Development Bank, 2020; Burhan *et al.*, 2021). However, at the same time, the constant exposure to such challenges in their markets tend to make SMEs more resilient to cope with external shocks and respond to new product demands (Bianchini & Kwon, 2021). As such, this can be argued that organizational resilience is a vital operational capability to take advantage of innovation capabilities for organizational performance. Stating differently, organizational resilience might moderate the impacts of explorative and exploitative innovation capabilities on organizational performance given that SMEs might find it difficult to balance and simultaneously pursue both these activities.

Explorative innovation capability entails variation, risk-taking, experimentation, and innovations (Benner & Tushman, 2003). This can allow SMEs to develop novel products, processes, or services that can increase market performance. However, Asian economies are dynamic with growing fluctuations in customers’ demands and changes in political systems. In such a case, organizational resilience can

enable these SMEs to cope with the external environments by effectively utilizing explorative innovation capability for organizational performance. Organizational resilience entails features like identification, response, experimentation, adaptation, and flexibility (Iborra *et al.*, 2020). It allows SMEs to withstand stress and recover from external shocks by acquiring and using new knowledge for product innovations, thereby leading to enhanced market shares. This is consistent with the dynamic capability view suggesting that firms need to exploit complementary dynamic capabilities to overcome inertia and timely respond to environmental changes (Eisenhardt & Martin, 2000; Teece *et al.*, 1997). While organizational resilience is vital to manage tensions effectively and have stability to survive (Duarte Alonso *et al.*, 2020; Fath *et al.*, 2021), explorative innovation is crucial to experiment with new ideas and develop new product offerings for new customers or markets (Hughes *et al.*, 2021). As a result, the importance of combining organizational resilience with explorative innovation capabilities becomes more evident. Once SMEs identify threats and disruption in external environment, they can strategically respond to these threats by introducing technologically superior products, which in turn promotes market performance. Thus, we propose that:

Proposition 3a: The effect of explorative innovation capability on SMEs' organizational is conditioned on organizational resilience such that the relationship will be strengthened at a high level of organizational resilience.

Exploitative innovation capability allows SMEs to leverage their existing knowledge and resources for improving products, processes, or services (Ferreira *et al.*, 2020). Exploitation innovation capability entails low-risk activities that can ensure SMEs' immediate survival and organizational performance. However, the external shocks and environmental jolts in the Asia can threaten SMEs' engagement in successful exploitation activities (Afshar Jahanshahi & Brem, 2020; Lu *et al.*, 2022). Organizational resilience can enable SMEs to respond to external shocks (Gölgeci *et al.*, 2020), and continue their operations by maintaining control over functions (Gölgeci & Kuivalainen, 2020). More importantly, Asian SMEs with organizational resilience can extend their existing product and service portfolios and outperform competitors when faced with unexpected events (Darvishmotevali *et al.*, 2020). When SMEs possess greater organizational resilience, they exhibit a greater response to market disruptions, opportunities, and customer requirements by modifying their product and service offerings promptly (Marcucci *et al.*, 2022). Therefore, we expect that higher levels of organizational resilience can allow these SMEs to benefit from higher levels of exploitative innovation capability for organizational performance. Based on this discussion, we propose that:

Proposition 3b. The effect of exploitative innovation capability on SMEs' organizational is conditioned on organizational resilience such that the relationship will be strengthened at a high level of organizational resilience.

The following figure 1 presents our chapter’s summary framework based upon the discussion presented above.

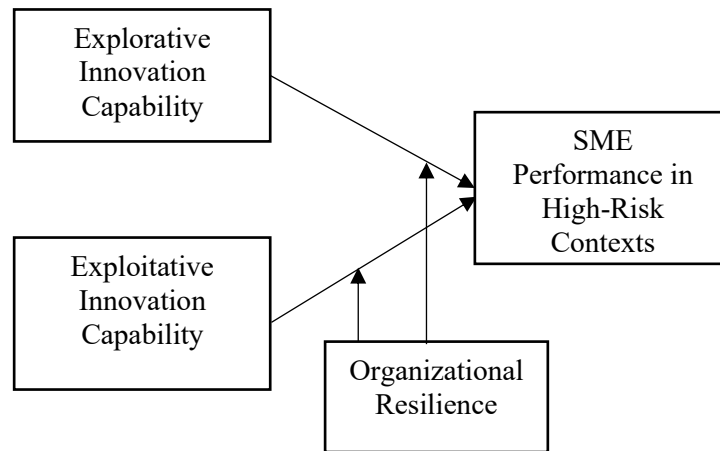


Figure 1. Summary framework

3. Implications

The discussion presented in our chapter offers theoretical, practical and policy implications. From a theoretical perspective, our chapter highlighted both explorative and exploitative innovation capabilities as two unique and distinct capabilities for SME performance. As the dynamic capability view suggests (Tece, 2007), SMEs need to build, integrate, and reconfigure capabilities to achieve a competitive advantage in a dynamic environment (e.g., Zahoor *et al.*, 2022). Explorative innovation capability allows SMEs to benefit from new knowledge and resources for the development of new products/services that can offer performance gains in the long run, whereas exploitative innovation capability enables SMEs to take advantage of existing knowledge and resources for improved products/services to increase market share in the short run. By utilizing both explorative and exploitative innovation capabilities, SMEs operating in high-risk countries can remain competitive and achieve organizational performance. In this concern, our chapter strengthens theorization of explorative and exploitative innovation interlinkage with SME performance, by specifying organizational resilience (Gölgeci *et al.*, 2020; Iborra *et al.*, 2020; Jia *et al.*, 2020) as a key contingency factor especially in high-risk contexts. We show that organizational resilience is a vital operational capability that enables SMEs operating in risky environments to bounce back and reorient themselves for developing competitive advantage. Such operational capability interacts with dynamic capabilities—explorative and exploitative innovation capabilities and enhance organizational performance. Specifically, we propose that organizational resilience strengthens the impact of explorative innovation and exploitative

innovation capabilities on organizational performance. At high levels of organizational resilience, SMEs in high-risk economies can utilize higher levels of explorative innovation and exploitative innovation capabilities for greater organizational performance. Hence, our chapter conceptually shows that dynamic and operational capabilities in a combinative way influence organizational performance significantly more than individually (or separately).

For the managerial audience, our findings provide guidance on how to use explorative innovation capability and exploitative innovation capability to realize organizational performance in high-risk economies' context. This is essential for the long-term viability and growth of SMEs originating from institutionally weak and uncertain markets. Our work shows that for an SME to attain superior performance, it is vital to utilize explorative innovation and exploitative innovation capabilities. This highlights the need for SMEs' managers in such circumstances to develop their technical skills and exploit explorative and exploitative innovation capabilities to achieve organizational performance. Having clear aims as to how to capitalize on their different roles to generate explorative and exploitative innovation is crucially important for employees to make the most out of their technical skills.

For the policymakers, it is important to evaluate the extent to which SMEs (in their country) engage in R&D efforts, which will enable the availability of government funding for such firms to support their explorative and exploitative innovation efforts, thereby leading to economic development. Also, it is in the best interest of the policy makers to support SMEs in fine tuning their internal capabilities and technology skills since these are important means to gain return on explorative and exploitative innovation activities. Further, emerging economy SME managers especially in relatively risky contexts should strengthen the interplay between organizational resilience, explorative innovation, and exploitative innovation where organizational resilience facilitates both types of innovation capabilities. Also, the external crises like COVID pandemic and geopolitical events like ongoing Ukraine war are a reality of the current business climate. Therefore, it is vital for managers to understand how SMEs can achieve resilience, survive, and bounce back; it can inform managers how to deal with stressful events while emphasizing innovation efforts for performance gains.

4. Limitations and Future Research Directions

Our chapter also has several limitations like any other academic study. Firstly, the current chapter is conceptual, and the developed propositions have not been tested. Hence, generalizability is limited. Risk dynamics are contextual and in different emerging (Asian) economies, it can manifest itself differently in relation to innovation capabilities and SME resilience. Future studies can build on the arguments presented in our chapters and undertake both qualitative and quantitative empirical assessments in different Asian economies so that specific implications can be drawn on these issues. Secondly, our chapter focused on explorative and exploitative innovation capabilities as determinants

of organizational performance. As SMEs often rely on external networks to gain access to resources (Díez-Vial *et al.*, 2022; Kim *et al.*, 2018; Neyens *et al.*, 2010), future studies could consider the role of collaborative explorative and exploitative innovation activities to improve organizational performance by taking an entire network view. Thirdly, we considered organizational resilience as the only contingency factor. There might be other moderating factors that can hinder or promote the impact of explorative and exploitative innovation capabilities on organizational performance. For example, certain environmental factors can influence innovation capabilities, including institutional specificity, government R&D support, and institutional enforceability. Also, there might be some other organizational factors to promote the innovation capabilities of SMEs like leaders' attributes, R&D teams, asset specificity, and so on. As such, future studies should consider additional moderating factors for explorative and exploitative innovation capabilities and organizational performance relationships.

5. Conclusions

The purpose of this chapter was to offer a conceptual discussion on the specific role played by the explorative and exploitative innovation capabilities for SME performance in high-risk contexts. The conceptual discussion presented established that both explorative (such as discovery of new opportunities, technologies, and markets) and exploitative (improving and optimizing existing products, processes, and business models) innovation capabilities are critical for SME performance (and success) in high-risk contexts (especially in emerging economies). It is important to stress that joint influence of these innovation capabilities is more beneficial for SME performance compared to their individual influences. Also, for both explorative and exploitative innovation capabilities' influence on SME performance is strengthened by the presence of organizational resilience. Hence, the discussion offered in this chapter established organizational resilience acts as a contingency factor to support the linkage between explorative and exploitative innovation capabilities and organizational performance.

References

- Afshar Jahanshahi, A., & Brem, A. (2020). Entrepreneurs in post-sanctions Iran: Innovation or imitation under conditions of perceived environmental uncertainty? *Asia Pacific Journal of Management*, 37(2), 531-551.
- Amankwah-Amoah, J., Khan, Z., & Wood, G. (2021). COVID-19 and business failures: The paradoxes of experience, scale, and scope for theory and practice. *European Management Journal*, 39(2), 179-184.
- Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent, *Strategic Management Journal*, 14(1), 33-46.
- Bank, A. D. (2020). *Asia Small and medium-sized enterprises monitor 2020*. Manila, Philippines: Asia Development Bank Retrieved from <https://www.adb.org/sites/default/files/publication/650251/asia-sme-monitor-2020-volume-2.pdf>
- Bank, W. (2021). *Small and Medium Enterprises (SMEs) Finance*. The World Bank.
- Benner, M. J., & Tushman, M. L. (2003). Exploitation, Exploration, and Process Management: The Productivity Dilemma Revisited. *Academy of Management Review*, 28(2), 238-256.
- Bianchini, M., & Kwon, I. (2021). *Enhancing SMEs' resilience through digitalisation: The case of Korea*. Paris: OECD Retrieved from <https://doi.org/10.1787/23bd7a26-en>
- Brown, R., & Cowling, M. (2021). The geographical impact of the Covid-19 crisis on precautionary savings, firm survival and jobs: Evidence from the United Kingdom's 100 largest towns and cities. *International Small Business Journal*, 39(4), 319-329.
- Burhan, M., Salam, M. T., Hamdan, O. A., & Tariq, H. (2021). "Crisis management in the hospitality sector SMEs in Pakistan during COVID-19". *International Journal of Hospitality Management*, 98, 103037.
- Cao, Z., & Shi, X. (2021). A systematic literature review of entrepreneurial ecosystems in advanced and emerging economies. *Small Business Economics*, 57(1), 75-110.
- Colclough, S. N., Moen, Ø., Hovd, N. S., & Chan, A. (2019). SME innovation orientation: Evidence from Norwegian exporting SMEs. *International Small Business Journal*, 37(8), 780-803.
- Cooper, R. G. (1993). *Winning at New Products*. Perseus.
- Damanpour, F. (1991). Organizational Innovation: A Meta-Analysis Of Effects Of Determinants and Moderators. *Academy of Management Journal*, 34(3), 555-590.
- Darvishmotevali, M., Altinay, L., & Köseoglu, M. A. (2020). The link between environmental uncertainty, organizational agility, and organizational creativity in the hotel industry. *International Journal of Hospitality Management*, 87, 102499.
- Duarte Alonso, A., Kok, S. K., Bressan, A., O'Shea, M., Sakellarios, N., Koresis, A., Buitrago Solis, M. A., & Santoni, L. J. (2020). COVID-19, aftermath, impacts, and hospitality firms: An international perspective. *International Journal of Hospitality Management*, 91, 102654.
- Donbesuur, F., Owusu-Yirenkyi, D., Ampong, G. O. A., & Hultman, M. (2023). Enhancing export intensity of entrepreneurial firms through bricolage and international opportunity recognition: The differential roles of explorative and exploitative learning. *Journal of Business Research*, 156, 113467.
- Dubey, R., Gunasekaran, A., Childe, S. J., Bryde, D. J., Giannakis, M., Foropon, C., Roubaud, D., & Hazen, B. T. (2020). Big data analytics and artificial intelligence pathway to operational performance under the effects of entrepreneurial orientation and environmental dynamism: A study of manufacturing organisations. *International Journal of Production Economics*, 226, 107599.
- Eggers, F. (2020). Masters of disasters? Challenges and opportunities for SMEs in times of crisis. *Journal of Business Research*, 116, 199-208.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: what are they? . *Strategic Management Journal*, 21(10-11), 1105-1121.
- Exposito, A., & Sanchis-Llopis, J. A. (2018). Innovation and business performance for Spanish SMEs: New evidence from a multi-dimensional approach. *International Small Business Journal*, 36(8), 911-931.

- Fath, B., Fiedler, A., Sinkovics, N., Sinkovics, R. R., & Sullivan-Taylor, B. (2021). International relationships and resilience of New Zealand SME exporters during COVID-19. *critical perspectives on international business*, 17(2), 359-379.
- Ferreira, J., Coelho, A., & Moutinho, L. (2020). Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance: The moderating role of entrepreneurial orientation. *Technovation*, 92-93, 102061.
- Figueiredo, P. N., Larsen, H., & Hansen, U. E. (2020). The role of interactive learning in innovation capability building in multinational subsidiaries: A micro-level study of biotechnology in Brazil. *Research Policy*, 49(6), 103995.
- Gölgeci, I., Arslan, A., Dikova, D., & Gligor, D. M. (2020). Resilient agility in volatile economies: institutional and organizational antecedents. *Journal of Organizational Change Management*, 33(1), 100-113.
- Gölgeci, I., & Kuivalainen, O. (2020). Does social capital matter for supply chain resilience? The role of absorptive capacity and marketing-supply chain management alignment. *Industrial Marketing Management*, 84, 63-74.
- Harries, T., McEwen, L., & Wragg, A. (2018). Why it takes an 'ontological shock' to prompt increases in small firm resilience: Sensemaking, emotions and flood risk. *International Small Business Journal*, 36(6), 712-733.
- Huang, S., Ding, D., & Chen, Z. (2014). Entrepreneurial Leadership and Performance in Chinese New Ventures: A Moderated Mediation Model of Exploratory Innovation, Exploitative Innovation and Environmental Dynamism. *Creativity and Innovation Management*, 23(4), 453-471.
- Hughes, M., Chang, Y.-Y., Hodgkinson, I., Hughes, P., & Chang, C.-Y. (2021). The multi-level effects of corporate entrepreneurial orientation on business unit radical innovation and financial performance. *Long Range Planning*, 54(1), 101989.
- Iborra, M., Safón, V., & Dolz, C. (2020). What explains the resilience of SMEs? Ambidexterity capability and strategic consistency. *Long Range Planning*, 53(6), 101947.
- Jansen, J. J. P., Van Den Bosch, F. A. J., & Volberda, H. W. (2006). Exploratory Innovation, Exploitative Innovation, and Performance: Effects of Organizational Antecedents and Environmental Moderators. *Management Science*, 52(11), 1661-1674.
- Jia, X., Chowdhury, M., Prayag, G., & Hossain Chowdhury, M. M. (2020). The role of social capital on proactive and reactive resilience of organizations post-disaster. *International Journal of Disaster Risk Reduction*, 48, 101614.
- Khan, H., Zahoor, N., Arslan, A., & Khan, Z. (2023). Market exit and re-entry in a volatile emerging economy: a case study of Yamaha motorcycles in Pakistan. *Multinational Business Review*. Ahead of print article available online at <https://doi.org/10.1108/MBR-09-2022-0132>
- Khan, Z., Lew, Y. K., & Marinova, S. (2019). Exploitative and exploratory innovations in emerging economies: The role of realized absorptive capacity and learning intent. *International Business Review*, 28(3), 499-512.
- Kyriakopoulos, K., Hughes, M., & Hughes, P. (2016). The Role of Marketing Resources in Radical Innovation Activity: Antecedents and Payoffs. *Journal of Product Innovation Management*, 33(4), 398-417.
- Levinthal, D. A., & March, J. G. (1993). The myopia of learning. *Strategic Management Journal*, 14(S2), 95-112.
- Li, B., Zhong, Y., Zhang, T., & Hua, N. (2021). Transcending the COVID-19 crisis: Business resilience and innovation of the restaurant industry in China. *Journal of Hospitality and Tourism Management*, 49, 44-53.
- Li, Y., Li, X., Liu, Y., & Barnes, B. R. (2011). Knowledge communication, exploitation and endogenous innovation: the moderating effects of internal controls in SMEs. *R&D Management*, 41(2), 156-172.
- Limaj, E., & Bernroider, E. W. N. (2019). The roles of absorptive capacity and cultural balance for exploratory and exploitative innovation in SMEs. *Journal of Business Research*, 94, 137-153.
- Limaj, E., & Bernroider, E. W. N. (2019). The roles of absorptive capacity and cultural balance for exploratory and exploitative innovation in SMEs. *Journal of business research*, 94, 137-153.

- Liu, Y., Chan, C., Zhao, C., & Liu, C. (2019). Unpacking knowledge management practices in China: do institution, national and organizational culture matter? *Journal of Knowledge Management*, 23(4), 619-643.
- Liu, Y., Ndubisi, N. O., Liu, Y., & Barrane, F. Z. (2020). New product development and sustainable performance of Chinese SMMEs: The role of dynamic capability and intra-national environmental forces. *International Journal of Production Economics*, 230, 107817.
- Loon, M., & Chik, R. (2019). Efficiency-centered, innovation-enabling business models of high tech SMEs: Evidence from Hong Kong. *Asia Pacific Journal of Management*, 36(1), 87-111.
- Lopes de Sousa Jabbour, A. B., Ndubisi, N. O., & Roman Pais Seles, B. M. (2020). Sustainable development in Asian manufacturing SMEs: Progress and directions. *International Journal of Production Economics*, 225, 107567.
- Love, J. H., & Roper, S. (2015). SME innovation, exporting and growth: A review of existing evidence. *International Small Business Journal*, 33(1), 28-48.
- Lu, S., Shan, B., & Fei, Y. (2022). Exploring an inverted U-shaped relationship between entrepreneurial experience and Chinese new venture performance: the moderating role of environmental uncertainty. *Asia Pacific Business Review*, 28(4), 518-535.
- March, J. G. (1991). Exploration and Exploitation in Organizational Learning. *Organization Science*, 2(1), 71-87.
- Marcucci, G., Antomarioni, S., Ciarapica, F. E., & Bevilacqua, M. (2022). The impact of Operations and IT-related Industry 4.0 key technologies on organizational resilience. *Production Planning & Control*, 33(15), 1417-1431.
- Mazzucchelli, A., Chierici, R., Tortora, D., & Fontana, S. (2021). Innovation capability in geographically dispersed R&D teams: The role of social capital and IT support. *Journal of Business Research*, 128, 742-751.
- Najafi-Tavani, S., Najafi-Tavani, Z., Naudé, P., Oghazi, P., & Zeynaloo, E. (2018). How collaborative innovation networks affect new product performance: Product innovation capability, process innovation capability, and absorptive capacity. *Industrial Marketing Management*, 73, 193-205.
- O'Reilly, C. A., & Tushman, M. L. (2013). Organizational Ambidexterity: Past, Present, and Future. *Academy of Management Perspectives*, 27(4), 324-338.
- Ortiz-de-Mandojana, N., & Bansal, P. (2016). The long-term benefits of organizational resilience through sustainable business practices. *Strategic Management Journal*, 37(8), 1615-1631.
- Oura, M. M., Zilber, S. N., & Lopes, E. L. (2016). Innovation capacity, international experience and export performance of SMEs in Brazil. *International Business Review*, 25(4), 921-932.
- Purnomo, B. R., Adiguna, R., Widodo, W., Suyatna, H., & Nusantoro, B. P. (2021). Entrepreneurial resilience during the Covid-19 pandemic: navigating survival, continuity and growth. *Journal of Entrepreneurship in Emerging Economies*, 13(4), 497-524.
- Raymond, L., Bergeron, F., Croteau, A. M., Ortiz de Guinea, A., & Uwizeyemungu, S. (2020). Information technology-enabled explorative learning and competitive performance in industrial service SMEs: a configurational analysis. *Journal of Knowledge Management*, 24(7), 1625-1651.
- Rosenbusch, N., Brinckmann, J., & Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of Business Venturing*, 26(4), 441-457.
- Ryan, P., Geoghegan, W., & Hilliard, R. (2018). The microfoundations of firms' explorative innovation capabilities within the triple helix framework. *Technovation*, 76-77, 15-27.
- Saleem, H., Li, Y., Ali, Z., Mehreen, A., & Mansoor, M. S. (2020). An empirical investigation on how big data analytics influence China SMEs performance: do product and process innovation matter? *Asia Pacific Business Review*, 26(5), 537-562.
- Saridakis, G., Idris, B., Hansen, J. M., & Dana, L. P. (2019). SMEs' internationalisation: When does innovation matter? *Journal of Business Research*, 96, 250-263.
- Schoenherr, T., & Swink, M. (2015). The Roles of Supply Chain Intelligence and Adaptability in New Product Launch Success. *Decision Sciences*, 46(5), 901-936.

- Shashi, Centobelli, P., Cerchione, R., & Singh, R. (2019). The impact of leanness and innovativeness on environmental and financial performance: Insights from Indian SMEs. *International Journal of Production Economics*, 212, 111-124.
- Shin, H., Lee, J.-N., Kim, D., & Rhim, H. (2015). Strategic agility of Korean small and medium enterprises and its influence on operational and firm performance. *International Journal of Production Economics*, 168, 181-196.
- Singh, S. K., Giudice, M. D., Tarba, S. Y., & Bernardi, P. D. (2022). Top Management Team Shared Leadership, Market-Oriented Culture, Innovation Capability, and Firm Performance. *IEEE Transactions on Engineering Management*, 69(6), 2544-2554.
- Su, F., Khan, Z., Kyu Lew, Y., Il Park, B., & Shafi Choksy, U. (2020). Internationalization of Chinese SMEs: The role of networks and global value chains. *BRQ Business Research Quarterly*, 23(2), 141-158.
- Sulistyo, H., & Siyamtinah. (2016). Innovation capability of SMEs through entrepreneurship, marketing capability, relational capital and empowerment. *Asia Pacific Management Review*, 21(4), 196-203.
- Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350.
- Teece, D. J. (2014). The Foundations of Enterprise Performance: Dynamic and Ordinary Capabilities in an (Economic) Theory of Firms. *Academy of Management Perspectives*, 28(4), 328-352.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Velamuri, S. R., & Liu, W. (2017). Ownership structure, insider behavior, and IPO performance of SMEs in China. *Small Business Economics*, 48(3), 771-793.
- Wang, C. L., & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, 9(1), 31-51.
- Wu, Z., & Peng, X. (2020). Exploratory versus exploitative innovation: SME performance implications of managerial ties and empowering leadership in China. *Asian Journal of Technology Innovation*, 1-29.
- Xiao, S. S., Lew, Y. K., & Park, B. I. (2020). International Network Searching, Learning, and Explorative Capability: Small and Medium-sized Enterprises from China. *Management International Review*, 60(4), 597-621.
- Yang, H., Dess, G. G., & Robins, J. A. (2019). Does entrepreneurial orientation always pay off? The role of resource mobilization within and across organizations. *Asia Pacific Journal of Management*, 36(3), 565-591.
- Yang, X., Li, J., Stanley, L. J., Kellermanns, F. W., & Li, X. (2020). How family firm characteristics affect internationalization of Chinese family SMEs. *Asia Pacific Journal of Management*, 37(2), 417-448.
- Zahoor, N., Khan, Z., Arslan, A., Khan, H., & Tarba, S. Y. (2021). International open innovation and international market success: an empirical study of emerging market small and medium-sized enterprises. *International Marketing Review*, 39(3), 755-782.
- Zahoor, N., Golgeci, I., Haapanen, L., Ali, I., & Arslan, A. (2022). The role of dynamic capabilities and strategic agility of B2B high-tech small and medium-sized enterprises during COVID-19 pandemic: Exploratory case studies from Finland. *Industrial Marketing Management*, 105, 502-514.
- Zahoor, N., Tarba, S., Arslan, A., Ahammad, M. F., Mostafiz, M. I., & Battisti, E. (2023). The impact of entrepreneurial leadership and international explorative-exploitative learning on the performance of international new ventures. *Asia Pacific Journal of Management*. Early view available online at <https://doi.org/10.1016/j.ibusrev.2021.101800>
- Zhang, M., & Hartley, J. L. (2018). Guanxi, IT systems, and innovation capability: The moderating role of proactiveness. *Journal of Business Research*, 90, 75-86.
- Zuo, L., Fisher, G. J., & Yang, Z. (2019). Organizational learning and technological innovation: the distinct dimensions of novelty and meaningfulness that impact firm performance. *Journal of the Academy of Marketing Science*, 47(6), 1166-1183.