

Role of Agility and Innovation in Mediating Organizational Learning and Organizational Resilience: Post-Pandemic Survivor

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ABSTRACT

The global pandemic COVID-19 made the business environment more volatile, uncertain, and complex, or in other words, it was a crisis. Strategic agility and innovation have a mediating role between the organizational learning and organizational resilience to survive in crises such as in an economic crisis. In this paper, we propose the role of organizational learning in organizational resilience during the last 3 years experienced in the last three years. In addition, we will also explore the relationship between innovation and strategic agility in mediating organizational learning on organizational resilience. The research findings reveal that when organizational strategic agility & innovation increases, organizational resilience also increases because of their linear relationship. Additionally, organizational innovation and agile organization has a mediator role between organizational learning and organizational resilience.

Keywords: Organizational Learning, Strategic Agility, Organizational Innovation, Organizational Resilience, Human resource, Crisis

1. INTRODUCTION

In the recent business world, affected by COVID-19, every organization and firm faces a hard situation. The global pandemic COVID-19 made the dynamic business environment more volatile, uncertain, and complex, or in other words, it was a crisis. Every organization is challenged to survive in the crisis wave (Arokodare & Falana, 2021). The recent crisis is not a normal crisis like we know before. Every layer and industry in the world is facing this situation. The risk of financial loss, decreased sales volume, cash flow difficulties, staff reductions, and even business closures during crisis events is growing. Crisis events can also cause emotional and psychological stress for a business (Salvato et al., 2020).

In dealing with a crisis, risk analysis and communication within the internal organization has developed into a critical policy issue, where an understanding of the crisis becomes a strength for an organization experiencing a crisis (Kouzmin, 2008). A recent review of the literature on crisis management identified several dimensions of the crisis that occurred before, during and after the crisis, from the perspective of internal and external stakeholders. So, it is suggested that organizations need to understand the impact of the crisis on learning, social evaluation, and performance (Alves, 2020).

However, behind the crisis that occurred, an organization will be able to continue to grow if it can survive in the crisis. In understanding what are the reasons or factors that can be learned from the survival of an organization in the face of crisis, the study of Organizational Resilience is important (Chen et al., 2021). Organizational resilience can help understand researchers and practitioners to prepare for and study organizational management in the face of a crisis (Evenseth et al., 2022).

According to Evenseth et al., (2022), organizational resilience has quite a correlation with the capability of an organization to learn, adapt, and self-organize. Therefore, in forming organizational resilience, an organization is expected to present a culture that is suitable for individuals. The culture referred to and stated by Potnuru et al., (2019), is an ability, skill, and individual attribute in doing their work efficiently,

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effectively, producing maximum quality, and supporting innovation.

To present these capabilities, an organization needs to have organizational learning that can provide the ability to share, acquire, and create the knowledge and skills needed to form organizational resilience (Potnuru et al., 2019). Organizational learning itself can be improved through the development of knowledge individually and also collectively in an organization to respond to a situation that often changes (Wang, 2008).

Organizational learning allows organizations to sense and identify internal and external changes and adapt to market environmental conditions (Kohtamäki, 2010). Organizational learning contributes to the organization's continuous transformation and ability to innovate (Lyn Chan & Muthuveloo, 2021).

In addition to the concepts of organizational resilience and organizational learning, a company certainly needs to have other capabilities to support the organization in facing a crisis. Other capabilities that will be discussed in this research are innovation and strategic agility. According to Jin et al., (2022), crises in the business world such as the global COVID-19 pandemic will force organizations to make changes in their internal organizations. Furthermore, the crisis will provide a breakthrough for the business world with technological changes and innovations in the value chain from organizations in the affected industries.

Innovation describes, by itself, adaptable organizational behavior, as it implies meeting unmet customer needs or attracting new customer groups (Markides, 2006). However, the opposite is expressed by Jin et al., (2022), that according to some studies, crises such as pandemics will cause negative emotions for individuals in organizations. This will cause the atmosphere of the daily and business environment to be negative, which has an impact on the inhibition of employees' ability to think, withhold flexibility, and reduce the level of innovation progress in the organization. However, we still believe that in times of crisis, with the support of the capabilities of the organization, employees in the organization are still able to innovate in the organization.

In supporting the survivability of an organization, in addition to organizational learning and innovation, various studies have stated that one of the factors that can improve organizational adaptability in dealing with crisis or turbulence situations is the need for strategic agility (Al Taweel & Al-Hawary, 2021). Elali (2021) concluded that when organizational strategic agility increases, organizational resilience also increases as a result of their linear relationship.

Through this conceptual paper, we will propose the role of organizational learning in organizational resilience during the pandemic experienced in the last 3 years. In addition, we will also explore the role of innovation and strategic agility in mediating organizational learning on organizational resilience.

2. ORGANIZATIONAL RESILIENCE

Resilience is defined as resistance to shock without showing disintegration (Paton & Johnston, 2001). Resilience is not just about trying to accept change but about turning unfavourable conditions into advantages and finding ways to deal with them. Therefore, resilience is more than just adaptation but also about solution-oriented, creative, and proactive (Gulch & Weick, 1993).

Organizational resilience has received more attention since the 1990s, where resilience science has become a science that focuses on research on post-disaster resilience, such as the Katrina incident and the September 11 attacks. It is growing again from the science that was originally used from the field of physics, then to organizational/company management, and continues to develop into psychology. This further develops knowledge about resilience in strategic management arrangements (Chen et al., 2021).

Resilience in the organizational context is defined as a positive adaptation to adversity, to encourage organizations to achieve success. Organizations realize setbacks can be part of their business journey, by increasing the organization's ability to have a chance to survive and bounce back. In some entrepreneurship literature it is described that organizational resilience is a resource to defend the organization from disturbances due to environmental changes.

Resilience studies are currently often used in management science in the fields of disaster management (disaster management), crisis management, and high-reliable organizations (Chen et al., 2021). Many

studies that describe resilience in organizations are defined as the organization's defensive response in the face of environmental change, either in the form of resistance or recovery. But now there has been a shift in perspective where organizational resilience is described as an organizational offensive response in the face of environmental changes by carrying out an adaptation process (Duchek, 2020).

There are three important elements in the study of organizational resilience. The first is that organizations operate in a dynamic business environment. Second, organizations respond to crises by reconfiguring their organizational resources, reshaping organizational relationships, and optimizing organizational processes in negative situations. Third, organizations achieve recovery and growth after the crisis (Chen et al., 2021).

As Chen et al., (2021) stated, that in measuring organizational resilience, there is no universal agreement on how many and what dimensions are defined in measuring organizational resilience. In his study, there were three types of dimensional factors that emerged. There are two types of dimensions, three types of dimensions, and four types of dimensions. In this study, we use the dimensions used by Rai et al., (2021) in explaining organizational resilience that can measure capabilities in extreme crisis situations, namely the dimensions of crisis anticipation, organizational robustness, and recoverability based on the description of resilience as the ability to perform anticipating, avoiding, and adapting to the shock of a crisis or disruption (Sajko et al., 2021).

The first dimension in organizational resilience is crisis anticipation, which is the organization's ability to predict crises that can attack the organization in the future. In anticipation, the ability to collect information about future challenges, and share these details with all organizational structures can strengthen capabilities and maintain organizational stability (Rai et al., (2021).

Second, the dimension of organizational robustness is the proactive ability of an organization to face disruption by establishing a risk management infrastructure and adapting to a dynamic business environment while minimizing risk in its changes. Or in other words, is a capability in mitigating risk in a crisis to maintain the sustainability of the organization Rai et al., (2021).

The third dimension is recovery, where the organization is able to recover (recover) the current system to the situation before the crisis, or even grow after experiencing changes. This capability requires the involvement of all organizational resources such as financial, human, technological, and other resources in responding to change and accelerating the recovery process (Brusset & Teller, 2017).

Organizational Learning on Organizational Resilience

Organizational learning is a process where an organization can develop new knowledge and views from shared experiences of members (e.g. employees, managers, directors) within an organization, and have the potential to influence organizational behaviour and improve company capabilities (Jiménez-Jiménez & Sanz-Valle, 2011). All interactions at levels within an organization, such as staff, managers, and top leaders are needed in shaping organizational learning (Evenseth et al., 2022).

In their research, (Walker et al., 2014) found that organizational resilience is enhanced through prioritizing employee welfare. Where employee welfare is created through a positive social environment where employees are free to share information and actively listen to employee needs. Organizations that have a high level of employee involvement will increase employee dedication and commitment to focus on organizational needs even in crisis conditions (Felício et al., 2014).

Several previous organizational learning theories, from various perspectives, explained some common characteristics in organizations, including (i) collective awareness and learning, and (ii) changes in organizational structure in response to adaptation to environmental changes (Appelbaum & Gallagher, 2000). Learning is a natural process (Antonacopoulou & Sheaffer, 2014). In facing a crisis, learning becomes an important variable in maintaining and having a positive impact on an organization (Evenseth et al., 2022).

Based on the explanation above, the following proposition can be generated:

P1: organizational learning has a positive effect on the formation of organizational resilience



3. STRATEGIC AGILITY AND ITS MEDIATION EFFECT

Strategic agility is the organization's ability to maintain flexibility in responding to a dynamic business environment, understanding new opportunities, and being able to concentrate, with clear strategic goals. Meanwhile, according to Ivory & Brooks (2018), strategic agility is the ability to quickly recognize and seize opportunities, change direction, avoid collisions, and form the basis of a better approach. There is another opinion regarding strategic agility, where strategic agility is the ability of management to respond to a changing environment constantly and quickly, then deliberately make the strategic steps needed for successful implementation (Xing et al., 2020).

The concepts of organizational resilience and strategic agility have similarities regarding the view of change as an opportunity in active change management towards organizational renewal and growth. The speed of organizational response is an important factor in improving organizational resilience, which is contained in the strategic resilience concept (Miceli et al., 2021). In their research, Akhigbe & Onuoha, (2019) investigated the relationship between strategic agility and organizational resilience in food and beverage companies in Rivers State, Nigeria. The research findings reveal that there is an important relationship between strategic agility and organizational resilience, where the study concluded that when organizational strategic agility increases, organizational resilience also increases because of their linear relationship (Gerald et al., 2020).

Quick response can create a competitive advantage because it creates time value for the customer. To reach the top of the market, creating new things and presenting them to customers in a fast manner is a very important requirement. The growth and survival of a company in a profitable way depends on the company's efforts to avoid inertia and become an agile company (Bachmann et al., 2020)

Subhi Idris & AL-Rubaie, (2013) found that dimensions of organizational learning, which include knowledge acquisition, interpretation, dissemination, and activation (strategic knowledge creation, strategic knowledge interpretation, and strategic knowledge implementation), are all related to strategic agility.

In line with organizational resilience, strategic agility also requires an organization to always understand and study the dynamic business environment, and always be prepared to face the challenges that occur. This is of course to prepare the organization to face uncertain situations and adapt to the upcoming crisis (Harraf et al., 2015).

There is still limited literature explaining the mediating ability of strategic agility in the relationship between organizational learning and organizational resilience. However, empirical research conducted by Kale et al., (2019) found that strategic agility has a positive mediating effect on organizational performance in non-crisis times. This is due to the ability to absorb knowledge within the organization to be more optimal with the strategic agility capability. Strategic agility provides the ability for organizations to prepare to respond and adapt to changing environments and rapidly changing technologies, so organizations can change strategies quickly to adapt to changing customer expectations and the movement of competitors.

Based on the explanation above, the following hypotheses can be generated:

P2: Organizational learning has a positive effect on strategic agility.

P3: Strategic agility has a positive effect on organizational resilience

P4: Strategic agility mediates the relationship between organizational learning and organizational resilience.

4. INNOVATION AND ITS MEDIATION EFFECT

Schumpeter distinguishes five types of innovation, namely product innovation, production method innovation, supply source innovation, innovative market exploitation, and innovative ways to organize business (Anwar, 2018). Innovation can be viewed as a gradual, or radical process. With gradual innovation, organizations can make changes gradually (step by step) or with continuous change (continuous). Or it can be in a radical form such as a sudden change, or in a spectacular way in a short time.

In a crisis that forces organizations to adapt quickly, affecting the significant impact on resources, capabilities, and value creation in the company's processes, therefore companies have started looking for new tactics to gain competitive advantage (Schneider & Spieth, 2013). It has been recognized in various literatures, that innovation is an important capability in keeping organizations competitive, sustainable, and successful (Abbas et al., 2020). Therefore, in the concept of organizational resilience, innovation becomes an important capability to survive in crisis situations.

The focus in this research on innovation is organizational innovation, which is an innovation that is within the organizational structure, with an analysis that covers the entire organization, namely managerial, group, and individual levels (Crossan & Apaydin, 2010). In researching organizational innovation, this research will provide an understanding of innovation science that is practical to use for managers in shaping innovation in organizational structures and systems.

According to Mardani et al., (2018), organizational innovation can be divided into three aspects: the speed of innovation, the quality of innovation, and the quantity of innovation. These three dimensions will show the ability of the organizational innovation process to produce an innovation process that can adapt to crises and provide advantages for strategic orientation in achieving organizational resilience.

Organizational learning helps organizations gain new knowledge that can be used to initiate innovation. This is due to the components of organizational learning, namely: knowledge acquisition, knowledge distribution, organizational memory and shared interpretation, which show the distribution of knowledge that will give rise to new ideas for the organization (Bolaji Bello & Olarewaju Adeoye, 2018).

In addition, some literature states that learning capability positively influences organizational innovation. As research conducted by (Jiménez-Jiménez & Sanz-Valle, 2011) show that there is a positive relationship empirically between organizational learning and organizational innovation.

Furthermore, resilience in organizations is needed in adapting and protecting from the negative consequences of the crisis. In this condition, the organization's ability to change rapidly, such as making changes to its products, processes, or administration is needed tactically (Heredia et al., 2022).

In the previous global COVID-19 pandemic situation, which resulted in people changing consumer behavior and work, from traditional to digital processes, it had an impact on organizations to change their approach to doing routine work, offering products, or conducting social interactions. These changes force organizations to innovate in accordance with the conditions of society to survive the challenges of the crisis.

Innovation can be used as a strategic tool in generating competitive advantage, thereby providing growth for the company, and maintaining competition with competitors. A resilient organization requires the ability to form new business processes in order to increase efficiency and effective capabilities (Mafabi et al., 2012).

In addition, organizational learning is a capability that reflects how an organization will be committed to the direction and practices of the organization, so that it can adapt to a dynamic environment, which is also part of innovation. Furthermore, in the process of producing novelty in processes, products, and organizational administration, innovation is a facilitator of organizational learning in terms of processing information to achieve organizational resilience (Mahmoud et al., 2016).

Based on the explanation above, the following proposition can be generated:

P5: Organizational learning has a positive effect on organizational innovation

P6: Organizational innovation has a positive effect on organizational resilience

P7: Organizational innovation mediates the relationship between organizational learning and organizational resilience.

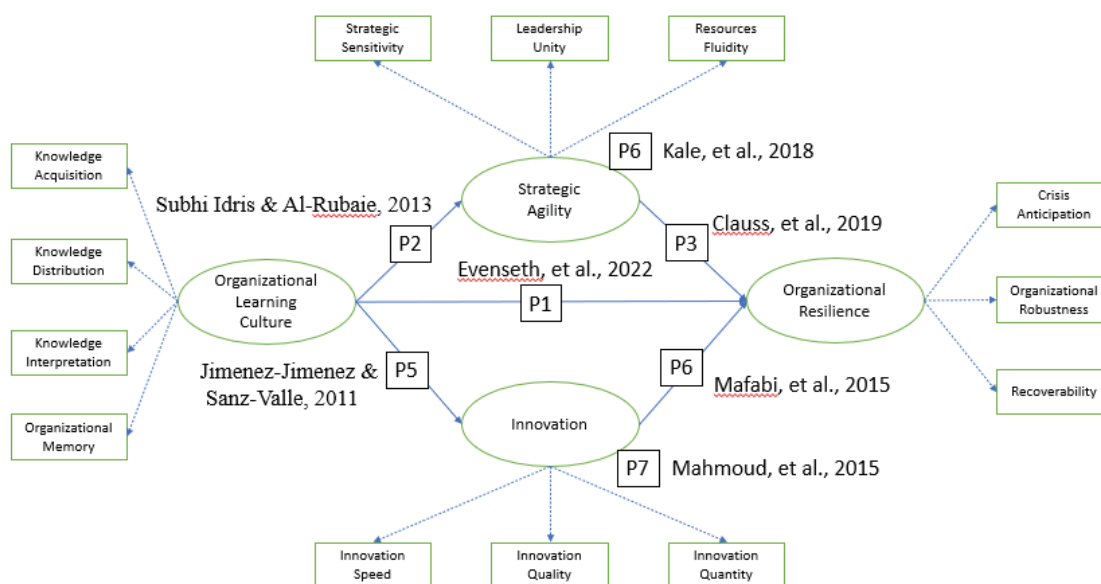


Figure 1. Conceptual Model

5. CONCLUSION

The picture above is the conceptual model that researchers used in building the propositions and conducting the future research. The building of propositions uses various approaches from past research that has been done.

Organizational learning is very important for organizations in dealing with rapidly changing environments, such as in an economic crisis. Conditions that occur in the industry today encourage organizational or company leaders to develop organizational learning where organizational learning can create strategic agility and organizational innovation that can produce organizational resilience (Jiménez-Jiménez & Sanz-Valle, 2011; Subhi Idris & AL-Rubaie, 2013).

Research from Evenseth et al, (2022) indicates that learning deserves greater emphasis in relation to how organizations can develop resilience. It also highlights the importance of identifying the determinants of organizational learning to build organizational resilience. By elaborating the various facets of organizational learning in organizational resilience, the value of informal and unintentional learning processes, the need for a system, contextual factors, and the focus on unlearning, our findings and analysis contribute with deeper insights to this field of study also reflecting on the complexity of organizational learning interactions stated in theory.

Good organizational innovation and strategic agility are needed to create organizational resilience. Organizations that have skilled, experienced, and suitable human resources will make it easier for the organization to adapt to the new environment. The creation of organizational resilience can improve performance or maintain the survival of the organization, this is very important considering that the external environment of the organization is unpredictable, especially in crises.

Through the explanation above, the novelty in this research is how organizations need ambidexterity capabilities and proper human capital on building strategic resilience. In addition, organizational innovation and agile organization has a mediating role between the human capital and organizational resilience to survive in crises like COVID-19 pandemic.

6. FUTURE RESEARCH

In future studies, organizational learning, strategic agility, and organizational innovation can deal with various sectors with different sampling groups. Given the lack of work on the issues, this issue can be

examined in terms of overall business performance and different types of performance (e.g., financial performance, customer satisfaction, innovation performance), in the large and small enterprises sector. Future studies should strive to use a multi-method multi-measure approach instead of obtaining data from one source. There is a need for new research to clarify agility-related concepts, to separate strategic agility from other agility types, to make establishments understand its importance, and to fill gaps in the literature.

Also, there is a need to conduct new research following the various measurements of other capabilities such as organizational learning and organizational innovation. A suggestion for a specific research subject is to examine the impact of company stakeholders in terms of strategic agility and organizational learning. Additionally, it is suggested to develop a new scale to measure organizational resilience in post-pandemic situations.

REFERENCES

- Abbas, J., Zhang, Q., Hussain, I., Akram, S., Afaq, A., & Shad, M. A. (2020). Sustainable innovation in small medium enterprises: The impact of knowledge management on organizational innovation through a mediation analysis by using SEM approach. *Sustainability (Switzerland)*, 12(6). <https://doi.org/10.3390/su12062407>
- Akhigbe, E. A., & Onuoha, B. C. (2019). Strategic agility and organizational resilience of food and beverage firms in Rivers state, Nigeria. *International Journal of Business Systems and Economics*, 12(2), 80–93.
- al Taweel, I. R., & Al-Hawary, S. I. (2021). The mediating role of innovation capability on the relationship between strategic agility and organizational performance. *Sustainability (Switzerland)*, 13(14). <https://doi.org/10.3390/su13147564>
- Alves, J. (2020). *Crisis Management for Small Business during the COVID-19 Outbreak: Survival, Resilience and Renewal Strategies of Firms in Macau*. 1–29. <https://doi.org/10.21203/rs.3.rs-34541/v1>
- Antonacopoulou, E. P., & Sheaffer, Z. (2014). Learning in Crisis: Rethinking the Relationship Between Organizational Learning and Crisis Management. *Journal of Management Inquiry*, 23(1), 5–21. <https://doi.org/10.1177/1056492612472730>
- Anwar, M. (2018). Business model innovation and SMEs performance-Does competitive advantage mediate? *International Journal of Innovation Management*, 22(7). <https://doi.org/10.1142/S1363919618500573>
- Appelbaum, S. H., & Gallagher, J. (2000). The competitive advantage of organizational learning. *Journal of Workplace Learning*, 12(2), 40–56. <https://doi.org/10.1108/13665620010316000>
- Arokodare, M. A., & Falana, B. R. (2021). Strategic Agility and the Global Pandemic: The Agile Organizational Structure, A Theoretical Review. In *Information Management and Business Review* (Vol. 13, Issue 1).
- Bachmann, M., Kurzmann, A., Gutierrez, B. C., & Neyer, A.-K. (2020). The Paradox of Agility: Reduce Formalization? Introduce Formalization! *Die Unternehmung*, 74(2), 122–135. <https://doi.org/10.5771/0042-059x-2020-2-122>
- Bolaji Bello, O., & Olarewaju Adeoye, A. (2018). Organizational learning, organizational innovation and organizational performance: Empirical evidence among selected manufacturing companies in Lagos Metropolis, Nigeria. *Journal of Economics and Management*, 33, 25–38. <https://doi.org/10.22367/jem.2018.33.02>
- Brusset, X., & Teller, C. (2017). Supply chain capabilities, risks, and resilience. *International Journal of Production Economics*, 184, 59–68. <https://doi.org/10.1016/j.ijpe.2016.09.008>
- Chen, R., Xie, Y., & Liu, Y. (2021). Defining, conceptualizing, and measuring organizational resilience: A multiple case study. *Sustainability (Switzerland)*, 13(5), 1–24. <https://doi.org/10.3390/su13052517>



- Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies*, 47(6), 1154–1191. <https://doi.org/10.1111/j.1467-6486.2009.00880.x>
- Duchek, S. (2020). Organizational resilience: a capability-based conceptualization. *Business Research*, 13(1), 215–246. <https://doi.org/10.1007/s40685-019-0085-7>
- Elali, W. (2021). The Importance of Strategic Agility to Business Survival During Corona Crisis and Beyond. *International Journal of Business Ethics and Governance*, 1–8. <https://doi.org/10.51325/ijbeg.v4i2.64>
- Evenseth, L. L., Sydnes, M., & Gausdal, A. H. (2022). Building Organizational Resilience Through Organizational Learning: A Systematic Review. In *Frontiers in Communication* (Vol. 7). Frontiers Media S.A. <https://doi.org/10.3389/fcomm.2022.837386>
- Felício, J. A., Couto, E., & Caiado, J. (2014). Human capital, social capital and organizational performance. *Management Decision*, 52(2), 350–364. <https://doi.org/10.1108/MD-04-2013-0260>
- Gerald, E., Obianuju, A., & Chukwunonso, N. (2020). Strategic agility and performance of small and medium enterprises in the phase of Covid-19 pandemic. *International Journal of Financial, Accounting, and Management*, 2(1), 41–50.
- Gulch, M., & Weick, K. E. (1993). The Collapse of Sensemaking in Organizations: The. In *Source: Administrative Science Quarterly* (Vol. 38, Issue 4). http://www.jstor.orgURL:http://www.jstor.org/stable/2393339http://www.jstor.org/stable/2393339?seq=1&cid=pdf-reference#references_tab_contents
- Harraf, A., Wanasika, I., Tate, K., & Talbott, K. (2015). Organizational Agility. *The Journal of Applied Business Research*, 31(2).
- Heredia, J., Rubiños, C., Vega, W., Heredia, W., & Flores, A. (2022). New Strategies to Explain Organizational Resilience on the Firms: A Cross-Countries Configurations Approach. *Sustainability (Switzerland)*, 14(3). <https://doi.org/10.3390/su14031612>
- Ivory, S. B., & Brooks, S. B. (2018). Managing Corporate Sustainability with a Paradoxical Lens: Lessons from Strategic Agility. *Journal of Business Ethics*, 148(2), 347–361. <https://doi.org/10.1007/s10551-017-3583-6>
- Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. *Journal of Business Research*, 64(4), 408–417. <https://doi.org/10.1016/j.jbusres.2010.09.010>
- Jin, X., Zhang, M., Sun, G., & Cui, L. (2022). The impact of COVID-19 on firm innovation: Evidence from Chinese listed companies. *Finance Research Letters*, 45. <https://doi.org/10.1016/j.frl.2021.102133>
- Kale, E., Aknar, A., & Başar, Ö. (2019). Absorptive capacity and firm performance: The mediating role of strategic agility. *International Journal of Hospitality Management*, 78, 276–283. <https://doi.org/10.1016/j.ijhm.2018.09.010>
- Kohtamäki, M. (2010). Relationship governance and learning in partnerships. *Learning Organization*, 17(1), 41–57. <https://doi.org/10.1108/09696471011008233>
- Kouzes, A. (2008). Crisis Management in Crisis? *Administrative Theory & Praxis*, 30(2), 155–183. <https://doi.org/10.1080/10841806.2008.11029631>
- Lyn Chan, J. I., & Muthueloo, R. (2021). Antecedents and influence of strategic agility on organizational performance of private higher education institutions in Malaysia. *Studies in Higher Education*, 46(8), 1726–1739. <https://doi.org/10.1080/03075079.2019.1703131>
- Mafabi, S., Munene, J., & Ntayi, J. (2012). Knowledge management and organisational resilience: Organisational innovation as a mediator in Uganda parastatals. *Journal of Strategy and Management*, 5(1), 57–80. <https://doi.org/10.1108/17554251211200455>

- Mahmoud, M. A., Blankson, C., Owusu-Frimpong, N., Nwankwo, S., & Trang, T. P. (2016). Market orientation, learning orientation and business performance: The mediating role of innovation. *International Journal of Bank Marketing*, 34(5), 623–648. <https://doi.org/10.1108/IJBM-04-2015-0057>
- Mardani, A., Nikoosokhan, S., Moradi, M., & Doustar, M. (2018). The Relationship Between Knowledge Management and Innovation Performance. *Journal of High Technology Management Research*, 29(1), 12–26. <https://doi.org/10.1016/j.hitech.2018.04.002>
- Markides, C. (n.d.). *Disruptive Innovation: In Need of Better Theory* Æ.
- Miceli, A., Hagen, B., Riccardi, M. P., Sotti, F., & Settembre-Blundo, D. (2021). *Thriving, Not Just Surviving in Changing Times: How Sustainability, Agility and Digitalization Intertwine with Organizational Resilience*. <https://doi.org/10.3390/su>
- Paton, D., & Johnston, D. (2001). Disasters and communities: Vulnerability, resilience and preparedness. *Disaster Prevention and Management: An International Journal*, 10(4), 270–277. <https://doi.org/10.1108/EUM0000000005930>
- Potnuru, R. K. G., Sahoo, C. K., & Sharma, R. (2019). Team building, employee empowerment and employee competencies: Moderating role of organizational learning culture. *European Journal of Training and Development*, 43(1–2), 39–60. <https://doi.org/10.1108/EJTD-08-2018-0086>
- Rai, S. S., Rai, S., & Singh, N. K. (2021). Organizational resilience and social-economic sustainability: COVID-19 perspective. *Environment, Development and Sustainability*, 23(8), 12006–12023. <https://doi.org/10.1007/s10668-020-01154-6>
- Sajko, M., Boone, C., & Buyl, T. (2021). CEO Greed, Corporate Social Responsibility, and Organizational Resilience to Systemic Shocks. *Journal of Management*, 47(4), 957–992. <https://doi.org/10.1177/0149206320902528>
- Salvato, C., Sargiacomo, M., Amore, M. D., & Minichilli, A. (2020). Natural disasters as a source of entrepreneurial opportunity: Family business resilience after an earthquake. *Strategic Entrepreneurship Journal*, 14(4), 594–615. <https://doi.org/10.1002/sej.1368>
- Schneider, S., & Spieth, P. (2013). Business model innovation: Towards an integrated future research agenda. *International Journal of Innovation Management*, 17(1). <https://doi.org/10.1142/S136391961340001X>
- Subhi Idris, W. M., & AL-Rubaie, M. T. K. (2013). Examining the Impact of Strategic Learning on Strategic Agility. *Journal of Management and Strategy*, 4(2). <https://doi.org/10.5430/jms.v4n2p70>
- Walker, B., Nilakant, V., & Baird, R. (2014). Promoting organisational resilience through sustaining engagement in a disruptive environment: What are the implications for HRM?
- Wang, J. (2008). Developing Organizational Learning Capacity in Crisis Management. *Advances in Developing Human Resources*, 10(3), 425–445. <https://doi.org/10.1177/1523422308316464>
- Xing, Y., Liu, Y., Boojihawon, D. K., & Tarba, S. (2020). Entrepreneurial team and strategic agility: A conceptual framework and research agenda. *Human Resource Management Review*, 30(1). <https://doi.org/10.1016/j.hrmr.2019.100696>