

# The Role of Sensing Capability, Learning Capability and Coordinating Capability on Market Performance: Perspective of Small and Medium Enterprises (SMEs)

## ABSTRACT

**Aims:** The aim of this study is to investigate the impact of sensing capability, learning capability, and coordinating capability on the market performance of Small and Medium Enterprises (SMEs). By examining these three critical capabilities, the research seeks to provide a comprehensive understanding of how SMEs can leverage their internal resources and competencies to achieve superior market outcomes as a market performance in today's dynamic and competitive business environment.

**Study design:** This study employs a quantitative research approach using a cross-sectional survey design to gather data on SMEs' sensing, learning, and coordinating capabilities, as well as their market performance.

**Place and Duration of Study:** The study was conducted in Pontianak, West Kalimantan, Indonesia. Data were collected from 97 SME owners or managers who were selected based on the criteria of having been established for at least 3 years. The duration of the study is not explicitly mentioned in the provided research paper.

**Methodology:** Data collection was done using a structured questionnaire administered through an online survey platform. The questionnaire was developed based on validated scales from previous studies and adapted to the context of SMEs in Pontianak. The collected data were analyzed using Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach. The analysis was conducted using SmartPLS 4.0 software and involved two stages: (1) measurement model assessment and (2) structural model assessment.

**Results:** The analysis results show that all constructs, namely Sensing Capability (SC), Learning Capability (LC), Coordinating Capability (CC), and Market Performance (MP), have AVE values greater than 0.5, suggesting that the convergent validity of all constructs is satisfied. Furthermore, the Cronbach's Alpha values for all constructs are above 0.7, indicating adequate internal consistency of the measurement items within each construct. The Composite Reliability values for the four constructs also exceed the threshold of 0.7, confirming that the composite reliability of each construct is met. Discriminant validity is also supported, as indicated by the square root of AVE (values on the diagonal) being greater than the values of the correlations of the constructs. To evaluate the study hypotheses and analyze the PLS path modeling, SEM with SmartPLS V.4 was operationalized. Of the various dynamic capabilities examined, sensing capability and learning capability had the most significant impact on market performance, with corresponding values of ( $\beta = 0.383$ ,  $p < 0.05$ ) and ( $\beta = 0.430$ ,  $p < 0.05$ ), respectively. As a result, hypotheses H1 and H2 are supported. Conversely, H3 has not been supported due to the insignificant relationship between coordinating capability and market performance ( $\beta = 0.088$ ,  $p > 0.05$ ).

**Conclusion:** This study emphasizes the importance of sensing and learning capabilities for SMEs in Pontianak to enhance market performance. Coordinating capability may have an indirect effect. SME owners and managers should invest in these capabilities to adapt to

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market changes and maintain a competitive advantage. The findings contribute to the understanding of dynamic capabilities and provide practical insights for SMEs in West Kalimantan, Indonesia.

*Keywords: sensing capability, learning capability, coordinating capability, market performance, SMEs.*

## INTRODUCTION

Small and Medium Enterprises (SMEs) play a crucial role in the global economy, contributing significantly to economic growth, job creation, and innovation. According to the World Bank, SMEs represent about 90% of businesses and more than 50% of employment worldwide [1]. Although the definition of SMEs varies by nation, they are typically distinguished from larger businesses by their smaller size, resources, and market reach [2]. According to the West Kalimantan BPS (Badan Pusat Statistik) report, there were 43,024 Small and Medium Industries operating in the province in 2019. However, data from the Head of the West Kalimantan Cooperatives and SMEs Office indicates that the total number of micro, small, and medium enterprises (MSMEs) in West Kalimantan reached 182,707 during the same period. Based on this figure, micro businesses constituted 91.23%, small businesses accounted for 7.95%, and medium businesses comprised 0.81% of the total MSMEs in the province. One of the most important measures of a SME's viability and success is its market performance. According to [3], it describes how successfully a company meets its objectives linked to the market, including growth in sales, market share, customer happiness, and profitability. SMEs' resources, competencies, strategies, and competitive environment are only a few of the internal and external aspects that affect their market performance [4].

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In recent years, SMEs have faced numerous challenges, including increased competition, technological disruption, and changing consumer preferences. Small and Medium Enterprises (SMEs) in Pontianak, West Kalimantan, also face several challenges that hinder their growth and sustainability, which can certainly affect the market performance of those SMEs.

To remain competitive and achieve superior market performance, SMEs must develop and leverage their capabilities [5]. Three critical capabilities that have gained attention in the literature are sensing capability, learning capability, and coordinating capability [6], [7], [8], [9], [10]. [8] argues that these capabilities are essential for firms to sense and seize opportunities, reconfigure their resources, and maintain competitiveness in dynamic environments. Sensing capability enables firms to identify and assess opportunities and threats in the external environment [7], while learning capability allows them to acquire, assimilate, and apply new knowledge to improve their processes and products [9]. Coordinating capability, on the other hand, facilitates the integration and alignment of various organizational resources and activities to achieve strategic objectives [10]. These capabilities are considered critical for firms to build and sustain competitive advantage in rapidly changing markets [6].

SMEs must enhance and utilize their sensing, learning, and coordinating capabilities in order to boost their market performance. Similarly, [11] emphasize the importance of market

intelligence management, which involves sensing and absorptive capacity, in enhancing SMEs' market performance. [12] highlight the need for SMEs to continuously learn and adapt to changes in the business environment to remain competitive. These competencies facilitate small and medium-sized enterprises (SMEs) in recognising market prospects, gaining fresh insights, and coordinating their assets and undertakings to accomplish their strategic goals [13]. SMEs are more likely to achieve superior market performance and maintain their competitive advantage over time if they engage in building these capabilities [14]. The interplay of sensing, learning, and coordinating capabilities can create a virtuous cycle of continuous improvement and adaptation for SMEs [8], [9], [15], [16]. Demonstrates through a simulation study that firms with higher levels of dynamic capabilities, manifested through sensing, learning, and coordinating, exhibit superior performance compared to their industry peers [16].

The aim of this study is to investigate the impact of sensing capability, learning capability, and coordinating capability on the market performance of Small and Medium Enterprises (SMEs). By examining these three critical capabilities, the research seeks to provide a comprehensive understanding of how SMEs can leverage their internal resources and competencies to achieve superior market outcomes in today's dynamic and competitive business environment. The results of this research are expected to broaden our understanding of how SMEs can effectively harness their internal capabilities to seize opportunities and overcome challenges in the modern business landscape, ultimately achieving sustainable growth and success. By bridging the gap between theory and practice, this study aims to provide valuable insights and recommendations that will benefit SMEs, policymakers, and researchers alike, ultimately contributing to the development of a more vibrant, innovative, and resilient SME sector.

## **2. MATERIAL AND METHODS**

### **2.1 Theory Resource-Based View**

The resource-based view (RBV) theory explains how companies can achieve sustainable competitive advantage through the development, accumulation, and utilization of valuable, rare, inimitable, and non-substitutable internal strategic assets [17]. RBV emphasizes a firm's current resource base, defined as its resources (tangible and intangible assets) and operational capabilities, while the dynamic capabilities (i.e. sensing, learning and coordinating capability) perspective addresses the intentional modification of this resource base [18]. Therefore, RBV theory is particularly relevant for researching SMEs' market performance because it focuses on identifying and optimizing each organization's idiosyncratic resources and capabilities. By leveraging unique asset configurations tailored to their context, SMEs may be able to carve out defensible market positions despite the disadvantages of smaller scale. Careful capability upgrading also allows SMEs to keep pace with changing external conditions.

Overall, RBV offers a theoretical lens to examine the internal drivers of competitive viability and growth for SMEs through asset orchestration appropriate for their situations. Further research should continue applying and refining RBV perspectives to elucidate performance differences across SMEs amid dynamic market environments. Businesses must develop the

capabilities to consistently configure organizational assets into viable resource bundles aligned with market demands [19] by recognizing, holding back, and eliminating various resources to match changing customer expectations, attitudes, and stakeholder behaviors [20]. However, at a broader conceptual level, firm performance is determined by a combination of many factors apart from resources, which include firm actions, historical events, market contexts, and industry conditions [21].

In conclusion, the RBV theory provides a valuable framework for understanding the internal factors that contribute to SMEs' market performance. By focusing on the development and utilization of unique resources and capabilities, SMEs can create sustainable competitive advantages and adapt to changing market conditions. However, it is essential to acknowledge that firm performance is influenced by a complex interplay of factors beyond resources alone, and future research should continue to explore these relationships in the context of SMEs.

## **2.2 Sensing Capability, Learning Capability dan Coordinating Capability**

The three pillars of this research (i.e. sensing, learning, and coordinating) have a major impact on the competitiveness and market performance of Small and Medium-Sized Businesses (SMEs) in the market. Through an examination of these capacities, this research seeks to offer significant perspectives on how SMEs might proficiently utilise their internal assets to manoeuvre through the obstacles and possibilities presented by the contemporary business environment.

For SMEs to recognise and seize market opportunities while averting possible risks, sensing competence is crucial. SMEs need to regularly monitor their surroundings and obtain market knowledge in order to remain competitive in today's dynamic business climate, which is characterised by rapid technology breakthroughs, evolving client preferences, and strong rivalry [22]. Sensing capability allows SMEs to anticipate market trends, identify unmet customer needs, and adapt their strategies accordingly, ultimately leading to improved market performance [23]. Therefore, we hypothesize:

H1: Sensing capability has a significant positive effect on the market performance of SMEs.

The ability to learn is essential for SMEs to develop, pick up new skills, and keep improving their business practices. The capacity to acquire and use new information is a crucial source of competitive advantage in the knowledge-based economy [24]. SMEs can improve their absorptive capacity and aid in the development of innovative goods, services, and processes by fostering a culture of learning, experimentation, and knowledge exchange [25]. SMEs can also adjust their business models to shifting market conditions and benchmark against industry best practices thanks to learning capability [26]. Thus, we propose:

H2: Learning capability has a significant positive effect on the market performance of SMEs.

To optimise their limited resources and synchronise their efforts to achieve strategic objectives, coordination skill is essential for SMEs. According to [27], SMEs can increase efficiency, cut waste, and streamline operations through effective collaboration. SMEs may develop synergies and improve overall performance by encouraging open communication, cross-functional cooperation, and coordinating staff goals with company objectives

[28]. Moreover, coordinating capability enables SMEs to leverage external networks and partnerships to access complementary resources and capabilities [29]. Consequently, we hypothesize:

H3: Coordinating capability has a significant positive effect on the market performance of SMEs.

## 2.3 Methodology

This study aims to analyze the influence of sensing capability, learning capability and coordinating capability on the market performance of SMEs in Pontianak with the framework as shown in the figure below.

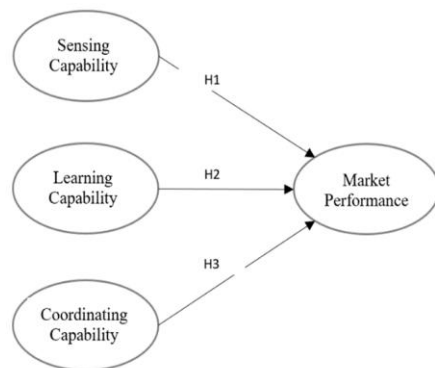


Fig. 1. Conceptual model. Source: own research

This study will employ a quantitative research approach using a cross-sectional survey design. Data will be collected directly from 97 SME owners or managers in Pontianak who will be selected to gather data on their sensing, learning, and coordinating capabilities, as well as their market performance. The criteria for respondents are SMEs that have been established for at least 3 years. A stratified random sampling technique will be used to ensure a representative sample across different industries and firm sizes.

Data will be collected using a structured questionnaire administered through an online survey platform. The questionnaire will be developed based on validated scales from previous studies and adapted to the context of SMEs in Pontianak. The questionnaire will consist of five sections: (1) demographic information and SMEs sector, (2) sensing capability, (3) learning capability, (4) coordinating capability, and (5) market performance. A five-point Likert scale (1 = strongly disagree; 5 = strongly agree) will be used to measure the constructs.

The collected data will be analyzed using Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach. PLS-SEM is suitable for this study as it can handle complex models with multiple variables and relationships [30]. The analysis will be conducted using SmartPLS 4.0 software [31]. The data analysis will involve two stages: (1)

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measurement model assessment and (2) structural model assessment. The measurement model assessment will examine the reliability and validity of the constructs using composite reliability, convergent validity, and discriminant validity. The structural model assessment will test the hypothesized relationships between sensing capability, learning capability, coordinating capability, and market performance using path coefficients, t-values, and p-values.

The results of this study are expected to provide insights into the relationships between dynamic capabilities (i.e sensing, learning, and coordinating) and market performance in the context of SMEs in Pontianak. The findings will contribute to the existing body of knowledge on dynamic capabilities and offer practical implications for SME owners and managers to enhance their capabilities and improve their market performance.

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### 3. RESULTS AND DISCUSSION

In this section, the main characteristics of the 97 companies participating in this study will be further explained. Regarding the type of company, based on the business sector, it can be seen in the table below.

**Table 1: The Distribution of Respondents Based on Business Sector**

No.	Sector	Total
1	Food and beverage	38
2	Automotive & Car care	12
3	Processed Food Manufacturing	18
4	Services	29

Based Table 1, shows the distribution of research respondents based on SME business sectors in Pontianak City. Specifically, there are 38 SME respondents from the food and beverage sector, 12 of SMEs from the automotive and car care sector, 18 of SMEs from the processed food manufacturing sector, and 29 of SMEs from the services sector. Thus, the total respondents in this study amounted to 97 SMEs consisting of various business sectors in Pontianak City. From these data it can be seen that the majority of research respondents come from the food and beverage sector. Then followed by the service sector, food processing industry, and automotive. Information about the industrial profile of these respondents is useful for understanding the description of SMEs studied, related to the influence of sensing capability, learning capability and coordinating capability on improving market performance. The distribution of respondents in various SME business sectors in Pontianak is also important to ensure that research results represent the general condition of SMEs.

#### 3.1 Data Analysis

The measurement model was tested to ensure sufficient convergent and discriminant validity. Convergent and discriminant validity are presented in the following tables, where the

data in Tables 2 and 3 demonstrate that all the instruments included in the study have adequate convergent and discriminant validity. The data indicate that the average variance extracted (AVE) explains at least 50% of the variance of the indicators analyzed in the model, and both the composite reliability (CR) and Cronbach's alpha values seem to be higher than 0.7, which is higher than the sufficient threshold for the reliability of latent variables [30]

**Table 2: Measurement Model: Quality Criteria of the Constructs.**

No.	Construct	AVE	Cronbach's Alpha	Composite Reliability
1	Sensing capability (SC)	0.676	0.761	0.862
2	Learning capability (LC)	0.694	0.781	0.872
3	Coordinating capability (CC)	0.839	0.808	0.912
4	Market performance (MP)	0.617	0.845	0.890

The table above presents the results of the measurement model assessment in this study, which aims to examine the validity and reliability of the constructs employed. The measurement model assessment is a crucial step in structural equation modeling (SEM) to ensure the adequacy of the measures before proceeding with the structural model analysis [31].

The analysis results indicate that all constructs, namely Sensing Capability (SC), Learning Capability (LC), Coordinating Capability (CC), and Market Performance (MP), have AVE (Average Variance Extracted) values greater than 0.5. This suggests that the convergent validity of all constructs is satisfied. Convergent validity refers to the extent to which the items of a construct converge or share a high proportion of variance in common (Hair et al., 2017).

Furthermore, the Cronbach's Alpha values for all constructs are above 0.7, indicating that the internal consistency of the measurement items within each construct is adequate. Cronbach's Alpha is a widely used measure of reliability that assesses the consistency of responses across the items of a construct [32].

The Composite Reliability values for the four constructs also exceed the threshold of 0.7, confirming that the composite reliability of each construct is also met. Composite reliability is another measure of internal consistency that takes into account the outer loadings of the indicators [31].

In conclusion, based on the results of this measurement model evaluation, it can be stated that all indicators and constructs used in this research model are valid and reliable, and can thus be employed for further analysis in examining the structural relationships among the variables in the model. These findings are in line with the recommendations provided by [31] for assessing the quality of the measurement model in PLS-SEM.

**Table 3: Discriminant Validity and Correlation between Latent Variables (Fornell & Larcker Criteria)**

No.	Construct	X1 (SC)	X2 (LC)	X3 (CC)	Y (MP)
1	SC	0.822			
2	LC	0.729	0.833		
3	CC	0.822	0.597	0.916	
4	MP	0.769	0.762	0.660	0.786

In the same way, discriminant validity indicates that the square root of AVE (values on the diagonal) is greater than the values of the correlations of the constructs [33]. Fornell and Larcker [34] developed an approach to evaluate discriminant validity using the average variance extracted (AVE). They state that discriminant validity can be supported if the square root of a latent variable's AVE (the diagonal element) is larger than the correlations between that latent variable and all other latent variables (absolute values of off-diagonal elements). A larger square root of AVE indicates it is sufficiently discriminatory from other latent variables.

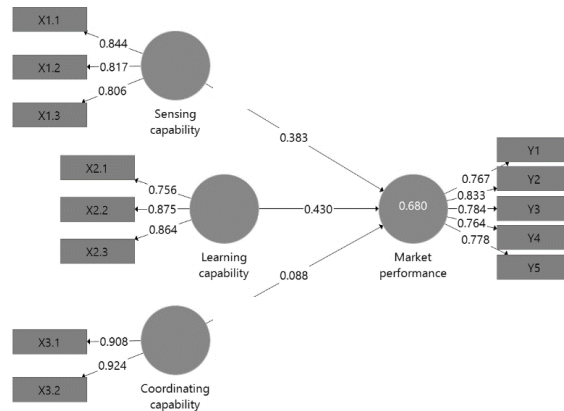
### 3.2 Hypotheses Testing Results

To evaluate the study hypotheses and analyze the PLS path modeling, SEM with SmartPLS V.4 was operationalized. Path coefficients ( $\beta$ ) and p values of the hypothetical model are calculated. The findings of the test of the hypothesis are clarified in Table 4.

**Table 4: Results of the Hypotheses Testing.**

No.	Hypotheses	$\beta$	p-Value	Result
1	Sensing capability (SC) $\rightarrow$ Market performance (MP)	0.383	0.001	Supported
2	Learning capability (LC) $\rightarrow$ Market performance (MP)	0.430	0.000	Supported
4	Coordinating capability (CC) $\rightarrow$ Market performance (MP)	0.088	0.484	Not supported

Of the various dynamic capabilities examined, sensing capability and learning capability had the most significant impact on market performance, with a corresponding value of ( $\beta = 0.383, p < 0.05$ ;  $\beta = 0.430, p < 0.05$ ), respectively. As a result, hypotheses H1 and H2 are supported. Conversely, H3 has not been supported due to the insignificant relationship between coordinating capability and market performance ( $\beta = 0.088, p > 0.05$ ).



**Figure 2: The Results of the Research Framework**

The fig.2 above depicts a research model that illustrates the relationship between three capabilities (sensing capability, learning capability, and coordinating capability) and market performance. Sensing capability is measured by three indicators, namely X1.1, X1.2, and X1.3, with factor loading values of 0.844, 0.817, and 0.806, respectively. Learning capability is measured by three indicators, namely X2.1, X2.2, and X2.3, with factor loading values of 0.756, 0.875, and 0.864, respectively. Coordinating capability is measured by two indicators, namely X3.1 and X3.2, with factor loading values of 0.908 and 0.924, respectively. Market performance is measured by five indicators, namely Y1, Y2, Y3, Y4, and Y5, with factor loading values of 0.767, 0.833, 0.784, 0.764, and 0.778, respectively. The research model indicates that sensing capability has a significant influence on market performance with a path coefficient value of 0.383. Learning capability also has a significant influence on market performance with a path coefficient value of 0.430. However, coordinating capability does not have a significant influence on market performance, as evidenced by a path coefficient value of 0.088. Among the three capabilities studied, learning capability has the greatest influence on market performance, followed by sensing capability. On the other hand, coordinating capability has not been proven to significantly affect market performance.

Sensing capability is defined as the ability of a company to identify, interpret, and make meaning of market signals arising from changes in the external environment, that may affect market performance, and the research results from [35] reveal a positive effect of total dynamic capabilities on the operational performance. It relates to how a company, in this case SMEs in Pontianak, systematically searches for information about shifts in customer preferences and needs, current industry trends, as well as competitors' moves. Several previous studies have proven the positive influence of sensing capability on improving SMEs' market performance. [20] in their study discovered that sensing capability plays a vital role in enabling SMEs to respond swiftly to market dynamics through new product development and business model innovation, and revealed that a firm's with dynamic capabilities significantly impact its open innovation performance [36]. This ultimately can increase market share and profitability. Thus, investing resources to strengthen sensing capabilities in understanding customer needs, identifying market trends, and studying the market environment can help improve the current market performance of SMEs in Pontianak.

Our results confirm the hypothesized relationship between learning capability and market performance. This finding aligns with previous studies that state that learning capability can improve market performance [37]. In this study, learning capability had a significant positive effect on the market performance of SMEs in Pontianak through openness to new ideas, organizational knowledge for business, and developing knowledge from experience. This implies the role of these dynamic capabilities in enabling SMEs to maintain their market performance and competitive advantage amid intense competition, where organizational learning capabilities play a key role in developing dynamic capabilities that can drive sustainable competitive advantage and improve market performance [38].

Coordinating capability does not have a significant effect on improving the market performance of SMEs in Pontianak. This shows that the company's ability to coordinate and integrate the activities of various departments has not proven to have a significant effect on improving the company's marketing and financial performance. In several studies, it has been shown to have a positive effect on improving market performance such as market share and company sales growth [19], [39]. This indicates that coordinating capability actually still has an effect, but indirectly on market performance. Like the opinion of [40] that the effects of dynamic capabilities on organizational performance work through substantive capabilities and depend on the quality of the organization's knowledge base. This means that it is still needed by SMEs to respond to various market opportunities even though its effect on market performance is indirect and needs to be mediated within the SME itself. Of course, further research is needed to confirm this.

#### 4. CONCLUSION

Based on the findings and discussion of the results of this study, sensing capability and learning capability are proven to significantly improve the market performance of SMEs in Pontianak, West Kalimantan. This means that these two capabilities are absolutely necessary for SME owners and management to be able to adapt and improve their business market performance. Sensing capability enables SMEs to identify market opportunities, anticipate trends, and respond swiftly to changes in customer needs, ultimately leading to enhanced market share and profitability. Learning capability, through openness to new ideas, organizational knowledge, and learning from experience, plays a crucial role in maintaining competitive advantage and improving market performance in the face of intense competition.

Although it does not have a significant direct effect, coordinating capability is still important to respond to market performance opportunities. Its effect on improving market performance can be indirect, namely through the mediating role of other variables within the SME itself. This suggests that coordinating capability is still needed by SMEs to effectively integrate and align their internal resources and activities, even though its impact on market performance may be mediated by other factors. Further research is needed to confirm and explore these indirect relationships.

In conclusion, this study highlights the importance of developing and leveraging dynamic capabilities, particularly sensing and learning capabilities, for SMEs in Pontianak to enhance their market performance in today's competitive business landscape. SME owners and managers should invest resources in strengthening these capabilities to adapt to market changes, seize opportunities, and maintain a sustainable competitive advantage. The

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findings of this research contribute to the existing body of knowledge on dynamic capabilities and provide practical insights for SMEs to improve their market performance in the context of West Kalimantan, Indonesia.

## REFERENCES

- [1] World Bank, "Small and Medium Enterprises (SMEs) Finance," <https://www.worldbank.org/en/topic/sme/finance>.
- [2] OECD, *OECD SME and Entrepreneurship Outlook 2005*. in OECD SME and Entrepreneurship Outlook. OECD, 2005. doi: 10.1787/9789264009257-en.
- [3] O. Taouab and Z. Issor, "Firm Performance: Definition and Measurement Models," *European Scientific Journal ESJ*, vol. 15, no. 1, Jan. 2019, doi: 10.19044/esj.2019.v15n1p93.
- [4] S. K. Singh, J. Chen, M. Del Giudice, and A. N. El-Kassar, "Environmental ethics, environmental performance, and competitive advantage: Role of environmental training," *Technol Forecast Soc Change*, vol. 146, pp. 203–211, Sep. 2019, doi: 10.1016/j.techfore.2019.05.032.
- [5] M. Eikelenboom and G. de Jong, "The impact of dynamic capabilities on the sustainability performance of SMEs," *J Clean Prod*, vol. 235, pp. 1360–1370, Oct. 2019, doi: 10.1016/J.JCLEPRO.2019.07.013.
- [6] V. Ambrosini and C. Bowman, "What are dynamic capabilities and are they a useful construct in strategic management?," *International Journal of Management Reviews*, vol. 11, no. 1, pp. 29–49, Mar. 2009, doi: <https://doi.org/10.1111/j.1468-2370.2008.00251.x>.
- [7] P. A. Pavlou and O. A. El Sawy, "Understanding the Elusive Black Box of Dynamic Capabilities," *Decision Sciences*, vol. 42, no. 1, pp. 239–273, Feb. 2011, doi: <https://doi.org/10.1111/j.1540-5915.2010.00287.x>.
- [8] D. J. Teece, "Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance," *Strategic Management Journal*, vol. 28, no. 13, pp. 1319–1350, Dec. 2007, doi: <https://doi.org/10.1002/smj.640>.
- [9] C. L. Wang and P. K. Ahmed, "Dynamic capabilities: A review and research agenda," *International Journal of Management Reviews*, vol. 9, no. 1, pp. 31–51, Mar. 2007, doi: <https://doi.org/10.1111/j.1468-2370.2007.00201.x>.
- [10] R. Wilden, S. P. Gudergan, B. B. Nielsen, and I. Lings, "Dynamic Capabilities and Performance: Strategy, Structure and Environment," *Long Range Plann*, vol. 46, no. 1, pp. 72–96, 2013, doi: <https://doi.org/10.1016/j.lrp.2012.12.001>.
- [11] S. Rakthin, R. J. Calantone, and J. F. Wang, "Managing market intelligence: The comparative role of absorptive capacity and market orientation," *J Bus Res*, vol. 69, no. 12, pp. 5569–5577, 2016, doi: <https://doi.org/10.1016/j.jbusres.2016.03.064>.

- [12] Dr. Y. Rashid, A. Rashid, M. Warraich, S. Sabir, and A. Waseem, "Case Study Method: A Step-by-Step Guide for Business Researchers," *Int J Qual Methods*, vol. 18, p. 160940691986242, Jul. 2019, doi: 10.1177/1609406919862424.
- [13] W. W. Ko and G. Liu, "The Transformation from Traditional Nonprofit Organizations to Social Enterprises: An Institutional Entrepreneurship Perspective," *Journal of Business Ethics*, vol. 171, no. 1, pp. 15–32, 2021, doi: 10.1007/s10551-020-04446-z.
- [14] S. M. Muriithi, "AFRICAN SMALL AND MEDIUM ENTERPRISES (SMES) CONTRIBUTIONS, CHALLENGES AND SOLUTIONS," *European Journal of Research and Reflection in Management Sciences*, vol. 5, no. 1, 2017, [Online]. Available: [www.idpublications.org](http://www.idpublications.org)
- [15] S. A. Zahra, H. J. Sapienza, and P. Davidsson, "Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda\*," *Journal of Management Studies*, vol. 43, no. 4, pp. 917–955, Jun. 2006, doi: <https://doi.org/10.1111/j.1467-6486.2006.00616.x>.
- [16] C. Zott, "Dynamic capabilities and the emergence of intraindustry differential firm performance: insights from a simulation study," *Strategic Management Journal*, vol. 24, no. 2, pp. 97–125, Feb. 2003, doi: <https://doi.org/10.1002/smj.288>.
- [17] V. Bamiatzi, S. Jones, S. Mitchelmore, and K. Nikolopoulos, "The Role of Competencies in Shaping the Leadership Style of Female Entrepreneurs: The Case of North West of England, Yorkshire, and North Wales," *Journal of Small Business Management*, vol. 53, no. 3, pp. 627–644, Jul. 2015, doi: 10.1111/jsbm.12173.
- [18] O. Schilke, S. Hu, and C. E. Helfat, "Quo vadis, dynamic capabilities? A content-analytic review of the current state of knowledge and recommendations for future research," *Academy of Management Annals*, vol. 12, no. 1, pp. 390–439, Jan. 2018, doi: 10.5465/annals.2016.0014.
- [19] M. Garcia Martinez, F. Zouaghi, T. Garcia Marco, and C. Robinson, "What drives business failure? Exploring the role of internal and external knowledge capabilities during the global financial crisis," *J Bus Res*, vol. 98, pp. 441–449, May 2019, doi: 10.1016/j.jbusres.2018.07.032.
- [20] S. Weaven, S. Quach, P. Thaichon, L. Frazer, K. Billot, and D. Grace, "Surviving an economic downturn: Dynamic capabilities of SMEs," *J Bus Res*, vol. 128, pp. 109–123, May 2021, doi: 10.1016/j.jbusres.2021.02.009.
- [21] O. Osiyevskyy, G. Shirokova, and P. Ritala, "Exploration and exploitation in crisis environment: Implications for level and variability of firm performance," *J Bus Res*, vol. 114, pp. 227–239, Jun. 2020, doi: 10.1016/j.jbusres.2020.04.015.
- [22] H. Aslam, C. Blome, S. Roscoe, and T. M. Azhar, "Determining the antecedents of dynamic supply chain capabilities," *Supply Chain Management: An International Journal*, vol. 25, no. 4, pp. 427–442, Jan. 2020, doi: 10.1108/SCM-02-2019-0074.

- [23] I. Ismail, I. M. Narsa, and B. Basuki, "The Effect of Market Orientation, Innovation, Organizational Learning, and Entrepreneurship on Firm Performance," *J EntrepEduc*, vol. 22, pp. 1–19, Jun. 2019.
- [24] S. Y. Cho and C. Lee, "Managerial Efficiency, Corporate Social Performance, and Corporate Financial Performance," *Journal of Business Ethics*, vol. 158, no. 2, pp. 467–486, Aug. 2019, doi: 10.1007/s10551-017-3760-7.
- [25] G. Kalmuk and A. Z. Acar, "The Mediating Role of Organizational Learning Capability on the Relationship Between Innovation and Firm's Performance: A Conceptual Framework," *Procedia SocBehavSci*, vol. 210, pp. 164–169, Dec. 2015, doi: 10.1016/j.sbspro.2015.11.355.
- [26] N. Yakin, "Exploring SMEs Marketing Performance Through Networking Capacity and Relational Capability," *Asia Pacific Management and Business Application*, vol. 009, pp. 137–150, Dec. 2020, doi: 10.21776/ub.apmba.2020.009.02.5.
- [27] D. Sirmon, M. Hitt, R. Ireland, and B. Gilbert, "Resource Orchestration to Create Competitive Advantage Breadth, Depth, and Life Cycle Effects," *J Manage*, vol. 37, pp. 1390–1412, Sep. 2011, doi: 10.1177/0149206310385695.
- [28] Z. Sarwar, M. A. Khan, Z. Yang, A. Khan, M. Haseeb, and A. Sarwar, "An Investigation of Entrepreneurial SMEs' Network Capability and Social Capital to Accomplish Innovativeness: A Dynamic Capability Perspective," *Sage Open*, vol. 11, p. 215824402110360, Jul. 2021, doi: 10.1177/21582440211036089.
- [29] A. H. Pratono, N. K. Darmasetiawan, A. Yudianto, and B. G. Jeong, "Achieving sustainable competitive advantage through green entrepreneurial orientation and market orientation," *The Bottom Line*, vol. 32, no. 1, pp. 2–15, Jan. 2019, doi: 10.1108/BL-10-2018-0045.
- [30] J. F. Hair, M. C. Howard, and C. Nitzl, "Assessing measurement model quality in PLS-SEM using confirmatory composite analysis," *J Bus Res*, vol. 109, pp. 101–110, Mar. 2020, doi: 10.1016/j.jbusres.2019.11.069.
- [31] Jr. Joseph F. Hair, Marko Sarstedt, Christian M. Ringle, and Siegfried Gudergan, *Advanced Issues in Partial Least Squares Structural Equation Modeling*. Sage Publications, 2017.
- [32] L. J. Cronbach, "Coefficient alpha and the internal structure of tests," *Psychometrika*, vol. 16, no. 3, pp. 297–334, 1951, doi: 10.1007/BF02310555.
- [33] W. Chin and G. Marcoulides, "The Partial Least Squares Approach to Structural Equation Modeling," *Modern Methods for Business Research*, vol. 8, Jan. 1998.
- [34] C. Fornell and D. F. Larcker, "Structural Equation Models with Unobservable Variables and Measurement Error: Algebra," 1981.

- [35] M. Abou Kamar, O. M. Albadry, S. Sheikhsouk, M. H. Ali Al-Abyadh, and O. Alsetoohy, "Dynamic Capabilities Influence on the Operational Performance of Hotel Food Supply Chains: A Mediation-Moderation Model," *Sustainability (Switzerland)*, vol. 15, no. 18, Sep. 2023, doi: 10.3390/su151813562.
- [36] A. Pundziene, S. Nikou, and H. Bouwman, "The nexus between dynamic capabilities and competitive firm performance: the mediating role of open innovation," *European Journal of Innovation Management*, vol. 25, no. 6, pp. 152–177, 2021, doi: 10.1108/EJIM-09-2020-0356.
- [37] L. E. Valdez-Juárez and M. Castillo-Vergara, "Technological capabilities, open innovation, and eco-innovation: Dynamic capabilities to increase corporate performance of smes," *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 7, no. 1, pp. 1–19, 2021, doi: 10.3390/joitmc7010008.
- [38] V. Ambrosini, C. Bowman, and N. Collier, "Dynamic capabilities: An exploration of how firms renew their resource base," *British Journal of Management*, vol. 20, no. SUPP. 1, Mar. 2009, doi: 10.1111/j.1467-8551.2008.00610.x.
- [39] L. Breznik and M. Lahovnik, "DYNAMIC CAPABILITIES AND COMPETITIVE ADVANTAGE: FINDINGS FROM CASE STUDIES \*," 2016.
- [40] S. A. Zahra, H. J. Sapienza, and P. Davidsson, "Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda\*," *Journal of Management Studies*, vol. 43, no. 4, pp. 917–955, Jun. 2006, doi: <https://doi.org/10.1111/j.1467-6486.2006.00616.x>.