

Driving Successful SMEs Business Performance in Indonesia: The Role of Network Competency, Responsiveness to Suppliers and Market Turbulence

Yuni Siswanti

Management Department, Universitas Pembangunan Nasional Veteran Yogyakarta

Retno Purwani Setyaningrum*

Magister of Management Department, Universitas Pelita Bangsa

Muafi Muafi

Management Department, Universitas Islam Indonesia

— *Review of* —
**Integrative
Business &
Economics**
— *Research* —

ABSTRACT

The increasing business competition forces SMEs to perform and maintain their position in the market. The present study is conducted to examine the influence of network competency on SMEs business performance with the moderating role of market turbulence and responsiveness to suppliers in the Indonesian SMEs sector. Through quantitative approach, we conducted a survey and distributed questionnaire to 350 wholesale and retail SMEs sector in West Java Province, Indonesia, chosen using purposive sampling method. The data obtained is processed using structural equation modeling with partial least square (SEM-PLS). The findings suggest that network competency has a positive and significant influence in improving SME business performance in Indonesia. Responsiveness to suppliers and market turbulence is proven to be moderator that can strengthen or weaken the relationship between network competency and SME business performance. This shows that the relationship between network competency and business performance is stronger when market turbulence is higher. Beyond the specific context of Indonesia, this study contributes to the broader literature by demonstrating the broader relevance of network competence in enhancing SMEs performance across different contexts and industries, especially under varying environmental conditions.

Keywords: Network competency, market turbulence, responsiveness to supplier, SMEs performance.

Received 1 May 2024 | Revised 21 August 2024 | Accepted 28 September 2024.

1. INTRODUCTION

Current global competition has motivated organizations to re-plan different strategies as an effort to improve their business performance (Goel et al., 2022). When a product is faced with similar competition in terms of price, quality, and features, the organization needs to change strategic direction in an effort to maintain business performance (Meng et al., 2023; Shah et al., 2024; Abbas et al., 2024). As stated by Ateljević et al. (2023), competitive strategy is a factor that can be used to improve business performance. According to Saleh & Al-Hakimi (2022), numerous studies have been conducted to investigate factors on how

business performance is improved, such as focusing on relationships between competitors, product quality, and marketing orientation. However, existing studies have revealed that relationships between competitors have shaped the competitive environment for businesses and reduced pricing power resulting in low profits (Javeed et al., 2020; Michaelides et al., 2019; Abbas et al., 2024). Scholars, therefore, recommend studying the mechanisms for building relationship competence to reveal whether and how market competence influences business performance, especially in the SMEs industrial sector (Elazhary et al., 2023; Saleh & Al-Hakimi, 2022).

In developing countries, the SMEs sector significantly influences a country's economy due to its large volume and high percentage of workforce involvement (Tehseen et al., 2019). The SMEs sector, particularly in developing countries, has been proven to create substantial job opportunities (Abdulrab et al., 2022; Al-Hattami et al., 2021). In Indonesia, SMEs are considered the driving force of the economy, garnering substantial attention to ensure their sustainability. Based on the report from Indonesian Chamber of Commerce and Industry (2023), the SMEs industrial sector contributed 20% to national GDP in 2022, particularly in West Java province. Despite this contribution, the poor performance of SMEs indicates urgent problems that necessitate implementation of strategic options to improve SME business performance.

Studies by Johan et al. (2022) and Tehseen et al. (2019) suggest that business actors, especially in the SMEs sector, can build network competence to maintain performance stability in an increasingly massive business environment. Kin et al. (2019) found that large market turbulence significantly influences SMEs business performance. Several studies confirmed that a lack of network competence can hinder business success (Tehseen et al., 2019; Sajilan, 2015). Ukko et al. (2023; Ruangchoengchum & Dechkerd, 2024) highlighted the importance of information for supplier integrity in business. However, these existing studies have yet to consider the moderating role in the relationship between network competency and SMEs business performance. This study thus proposes the moderating role of market turbulence and responsiveness to suppliers within the relationship.

This study fills the existing research gap by analyzing the impact of network competence on SMEs business performance under the moderating role of market turbulence and responsiveness to suppliers in Indonesia's SMEs sector. Beyond this specific context, the study contributes to the broader literature by asserting the critical role of network competence in improving business performance, particularly in developing countries, where SMEs are crucial for economic stability and growth. Moreover, this research extends the existing theoretical framework by proposing a model that incorporates market turbulence and supplier responsiveness as moderators, offering insights that can be applied to various industries and national contexts. This contribution is particularly relevant in an increasingly interconnected and competitive global market, where understanding the dynamics of network competence and its impact on performance can inform strategies across different sectors and regions.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The uncontrollable complexity of the external environment has forced organizations to learn and understand dynamic environmental changes so they can capture opportunities (Ansoff, 1975; Javalgi et al., 2005; Johan et al., 2019). Previous research has stated that firm ability to capture opportunities is an important factor in maintaining stable business performance (Kuo et al., 2022; Sarwar et al., 2021). According to strategic management theory, operationalizing strategic thinking, learning, and developing adaptive behavior is the key to

understanding environmental change (Mintzberg et al., 1998; Barney, 1991; Todeva, 2006; Johnson et al., 2014). This view must be understood in explaining how organizational resources can contribute to responding to opportunities in the environment. The initial approach to analyzing an external network in obtaining opportunities is a structural or positional approach (Todeva, 2006). In this approach, organizations need relationships to expand business units in response to capturing opportunities (Kuo et al., 2022; Perdomo-Charry et al., 2023; Sarwar et al., 2021; Tehseen et al., 2019). Besides that, Johan et al. (2022) suggested that organizations must be able to develop long-term network relationships with various parties such as customers, suppliers, and competitors. Even though this is considered a dependency, the ability to build a network can develop a business in a better direction (Tehseen et al., 2019).

The ability to build networks is very necessary when organizations pursue new ventures to face a competitive environment (Arnoti et al., 2023). For example, limited knowledge, skills, and use of technology will not be able to be implemented when the organization has limited network. Network relationships have influenced almost every aspect of business (Lin & Lin, 2016; Wang et al., 2021). Aspects of new business creation, idea development, resource gathering, implementation, and sustainable business performance can be built when organizations have the ability to establish good relationships. Fernhaber & McDougall (2005) stated that business is essentially a network activity. Through superior network development, organizations can achieve the expected performance and contribute to the growth of new businesses.

Network Competency and Business Performance

Currently, the ability to create network and establish relationships with external parties is an interesting factor to be examined (Perdomo-Charry et al., 2023; Sarwar et al., 2021), as its function can help businesses achieve better performance. Networks, connections, and relationships can enable organizations to access opportunities, knowledge, and improve their business image (Abbas et al., 2019). This shows that the business network that is built can provide information to the market and the knowledge needed by the organization in terms of providing products or services. In the SMEs industrial sector, network capabilities can overcome limited resources (Acosta et al., 2018; Cenamor et al., 2019; Zacca et al., 2015). According to Johan et al. (2019), successful organizations must continuously engage in environmental scanning and develop strategies through their networks to deal with uncertainty. Besides that, Sarwar et al. (2021) stated that SMEs business growth can depend on networks where they have good relationships with external parties. It is also proven that network competence forms relationships that can access various resources (Battistella et al., 2017; Johan et al., 2022).

Building a network is very important for the success and continuity of business, especially in the SMEs industrial sector. Sarwar et al. (2021) stated that the SMEs sector is often faced with resource problems that can hinder business sustainability. Thus, to overcome these problems, the organization's ability to manage network connections becomes an important resource in achieving business performance (Solano Acosta et al., 2018). In the decision-making process, coordinated efforts with external parties can provide advantages in managing resources, reducing risk and uncertainty. Several researchers have provided evidence that there is a positive relationship between network competence built and business performance (Perdomo-Charry et al., 2023; Tehseen et al., 2019; Ukko et al., 2023). Besides that, Tehseen et al. (2019) stated that the network built could provide long-term strategic direction. Thus, as business performance can depend on network competence

built with external parties, we assume that there is a positive relationship between network competence and business performance.

H1. Network competency has a positive effect on SMEs business performance

Responsiveness to Supplier and Market Turbulence as Moderating Variable

The current business environment, increasingly shaped by digitalization, has laid the groundwork for managing businesses in new ways (Nikolaev, 2018; Vučeković et al., 2020). When an organization establishes relationships with external resources, such as suppliers, these interactions can contribute to achieving a sustainable competitive advantage (Zinchenko et al., 2022). Effective collaboration with suppliers is crucial for building SMEs' business performance (Zou et al., 2021). Responsiveness to suppliers, which is characterized by an organization's ability to effectively engage with and react to suppliers' input, is essential for fostering such collaboration. (Ruangchoengchum & Dechkerd, 2024; Ukko et al., 2023).

According to Cahyaningratri & Naylah (2023), effective communication and information sharing within a supplier relationship are vital components of this responsiveness, enabling organizations to adapt and enhance their performance. SMEs, in particular, can improve their business performance by maintaining strong, responsive relationships with suppliers, ensuring that the flow of information and resources is smooth and mutually beneficial (Ukko et al., 2023).

Network competence, which involves the ability to manage and utilize these external relationships effectively, is significantly enhanced when an organization is responsive to its suppliers. This responsiveness not only supports the exchange of critical information but also strengthens the overall network, leading to better business outcomes. As Ukko et al. (2023) highlighted, achieving superior business performance through network competence requires active engagement with suppliers, facilitated by the organization's responsiveness. Therefore, we hypothesize that responsiveness to suppliers moderates the relationship between network competence and business performance.

H2. The higher the responsiveness to suppliers, the stronger the influence of network competence on SMEs business performance.

As defined by Jaworski & Kohli (1993), market turbulence is a type of rapid market change in meeting needs and preferences. According to Elazhary et al. (2023), market turbulence can provide the potential to cause high risks in the current business processes. During market turbulence, organizations are faced with the need to change their business models which also require modifications of their business processes before competitors get ahead (Elazhary et al., 2023; Sajilan, 2015). Currently, many organizations are required to invest more in IT and knowledge in running digital-based business processes to achieve business performance (Elazhary et al., 2023). As a result, organizations with their capabilities must be able to meet the demands by responding quickly to changes and unpredictable challenges (Kin et al., 2019). Several studies conducted by Kin et al. (2019) dan Saleh & Al-Hakimi (2022) has provided empirical evidence regarding the relationship between network competence and business success in rapidly changing market conditions. For SMEs, it needs to be noted that their capabilities also lie in external resources including suppliers, customers, and government agencies. This indicates that the high level of market volatility forces organizations to develop their competencies to obtain the resources needed to support business success.

H3. The higher the market turbulence, the stronger the influence of network competence on SMEs business performance.

3. RESEARCH METHODS

Sample and Procedure

This study uses a quantitative approach with an explanatory type which aims to investigate the relationship between network capability and business performance by looking at the moderating role of market turbulence and responsiveness to suppliers. This study focuses on the wholesale and retail SMEs sector in West Java province, Indonesia. According to data from the Central Statistics Agency (BPS) in 2023, the population in Indonesia has reached 278.7 million, as stated (Aldrich & Wiedenmayer, 2019) The high population in a country results in the growth of the level of organizational establishment. West Java Province was chosen in this research because business growth in the MSME sector mainly reached 10 million units, thus contributing 61% of GDP and 97% of labor absorption (Coordinating Ministry for the Indonesian Economy, 2023).

In this research, sampling criteria were based on several factors. First, the minimum number of employees is 20 people and a maximum of 50 people, following the suggestion from Ayodya (2020), that the criteria for SMEs in Indonesia do not exceed the limit of 50 employees. Second, the SMEs have a turnover of approximately 10-50 million per month. Third, the SMEs have been in business for at least 5 years. Based on these criteria, this study obtains a sample of 350 SMEs in the West Java Province, Indonesia. Information regarding the sample was obtained from the Chamber of Commerce and Industry office of Bandung City, which is the capital of West Java Province. The results of the findings show that the majority of respondents have a food business with 115 respondents and this is followed by the electronics sales industry sector with 95 respondents. On average, 124 respondents had income in the range of 10-25 million per month, and 132 had 20-30 employees. Table 1 displays the respondents' characteristic in this study.

Table 1. Respondent profile (N: 350)

Type of industry	Frequency	Percentage
Food	115	33%
Fashion	66	19%
Electronics and electrical	95	27%
Arts and crafts	55	16%
Building materials	19	5%
Firm sales/Month		
<10 million	94	27%
10 – 25 million	124	35%
25 – 40 million	84	24%
>40 million	48	14%
Number of employees		
<20	88	25%
20-30 employee	132	38%
30-40 employee	77	22%
50 employee	53	15%

Variable Measurement

In this section, a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) is used to measure the items. Then 17 statements were distributed based on the proposed variables. Network competency is measured by six items adopted from Tehseen et al. (2019) and Sajilan (2015). Market turbulence is measured by five items adopted from Elazhary et al. (2023) and Jaworski & Kohli (1993). Responsiveness to suppliers is measured by three items adopted from Ukko et al. (2023) and Huang et al. (2015). Business performance is measured by three items adopted from Fernandes & Solimun (2017) and Ukko et al. (2023).

Table 2. Item Measurement

Variable	Item	Source
Network Competency	<p>We compare our technical knowledge with partners.</p> <p>We evaluate the suitability of the collaboration results with each partner.</p> <p>We meet and discuss engaging in relationships with partners.</p> <p>We coordinate activities in different relationships with our partners.</p> <p>We assign several people to each relationship with our partners and assess the effort put into establishing relationships with partners.</p> <p>We monitor the extent to which relationships with partners provide benefits to us.</p>	Tehseen et al. (2019) and Sajilan (2015)
Market Turbulence	<p>In our type of business, product preferences often change over time.</p> <p>Customers tend to search for products all the time.</p> <p>We see demand for products and services from customers who have never purchased before.</p> <p>New customers tend to have different product-related needs than our customers.</p> <p>We serve many of the same customers as before.</p>	Elazhary et al. (2023) and Jaworski & Kohli (1993)
Responsiveness to Supplier	<p>Participate in service processes with suppliers</p> <p>Share information with suppliers</p> <p>Take action based on supplier requests</p>	Ukko et al. (2023) and Huang et al. (2015)
SMEs Business Performance	<p>Our operational performance showed significant improvement.</p> <p>Our organization has benefited in recent years through the network it has built.</p>	Fernandes & Solimun (2017) and Ukko et al.

	Our service performance shows quite good improvement.	(2023)
--	---	--------

4. RESULTS

This research uses structural equation modeling with partial least squares (SEM-PLS) to analyze survey data. As stated by Hair et al. (2019), variance-based structural equation models can estimate model parameters. PLS-SEM can contribute to the extension and development of theory and offer a means to assess the practical relevance of models for managerial considerations (Hair et al., 2019; Ringle et al., 2012). Additionally, PLS-SEM can generate statistical power to test mediation and moderation effects.

Validity and Reliability

Validity and reliability testing are carried out before we test the hypothesis. The results of the test are presented in table 3. From all measurements it was found that the reliability of the variable was adequate, because it had a Cronbach's Alpha value greater than 0.7 (Hair et al., 2011). The CR value looks significantly higher than 0.70 (Fornell & Larcker, 1981). Convergent validity was carried out by testing the AVE, all variables showed an AVE value greater than 0.50 (Fornell & Larcker, 1981).

Table 3. Results of Validity and Reliability Test of Survey Instrument

Items	Scale	Loadings	α	AVE	CR
Network competency	“Strongly disagree” [1] to “strongly agree”[5]		0.883	0.631	0.911
NC1					
NC2		0.708			
NC3		0.809			
NC4		0.777			
NC5		0.791			
NC6		0.868			
		0.807			
Market Turbulence	“Strongly disagree” [1] to “strongly agree”[5]		0.876	0.669	0.910
MT1		0.749			
MT2		0.852			
MT3		0.841			
MT4		0.818			
MT5		0.825			
Responsiveness to Supplier	“Strongly disagree” [1] to “strongly agree”[5]		0.824	0.739	0.895
RTS1		0.841			
RTS2		0.855			
RTS3		0.883			

Business Performance	“Strongly disagree” [1] to “strongly agree” [5]		0.740	0.656	0.850
BP1		0.812			
BP2		0.900			
BP3		0.707			

Notes: NC: Network Competency, MT: Market Turbulence, RTS: Responsiveness to Supplier, BP: Business Performance

Table 4 shows data from the correlation matrix model (CMM). CMM is utilized to evaluate the relationship between latent variables. A higher CMM value indicates a higher level of correlation, while a lower CMM value indicates a lower correlation.

Table 4. Correlation Matrix

	Mean/SD	1	2	3
1. Network Competency	4.14/0.878			
2. Market Turbulence	4.28/0.797	0.749**		
3. Responsiveness to Supplier	4.22/0.818	0.526**	0.763**	
4. Business Performance	4.29/0.723	0.471**	0.618**	0.664**

**Correlation is significant at the 0.01 level

Notes: NC: Network Competency, MT: Market Turbulence, RTS: Responsiveness to Supplier, BP: Business Performance

The discriminant validity test is used to assess how far a construct differs from other constructs in a study. If the results of the discriminant validity test show that all the values of the root mean square of average variance extracted (AVE) are greater than the correlation between the items, it indicates that the constructs being measured are truly different from each other. In this case, AVE is used to assess how well the observed variables reflect the construct being measured, while inter-item correlation measures the relationship between the observed variables. With all AVE square root values greater than the correlation values between items (Table 5), it can be concluded that the constructs measured have good discriminant validity. This shows that each construct has a unique influence and is not mixed up with other constructs in the research. Thus, these results provide confidence that the measurement instruments used are able to effectively differentiate between different constructs.

Table 5. Discriminant Validity-Fornell Larcker Criterion

	BP	MT	NC	RTS
BP	0.810			
MT	0.632	0.818		
NC	0.483	0.740	0.795	
RTS	0.687	0.774	0.549	0.860

Notes: NC: Network Competency, MT: Market Turbulence, RTS: Responsiveness to Supplier, BP: Business Performance

Statistical Analyses and Result

Hypothesis testing is carried out using multiple regression. Testing was carried out on hypotheses 1 to hypothesis 3 which predict that network competency has a positive effect on business performance (H1), that responsiveness to suppliers can moderate the relationship between network competency and business performance (H2), and that market turbulence can moderate the relationship between network competency and business performance (H3).

Through test results, it is known that hypothesis 1 which predicts network competency has a positive effect on business performance is proven to have a significant effect ($\beta = 0.165$, $p = 0.008$). Therefore, from these findings we can interpret that business performance can continue to increase along with increasing network competency. In testing hypothesis models 2 and 3, the interaction between network competency and responsiveness to suppliers ($\beta = 0.207$, $p = 0.001$) as well as the interaction between network competency and market turbulence ($\beta = 0.179$, $p = 0.007$) on business performance gives an interaction effect which is statistically significant. Therefore, we can interpret that the impact of network competency on business performance increases along with increasing market turbulence and responsiveness to suppliers.

Table 6. Summary of SEM

	Original Sample	Standard Deviation	T-Statistics	P-Value
NC → BP	0.165	0.066	2.483	0.008
NC x RTS → BP	0.207	0.071	2.927	0.001
NC x MT → BP	0.179	0.067	2.673	0.007

Notes: NC: Network Competency, MT: Market Turbulence, RTS: Responsiveness to Supplier, BP: Business Performance

5. DISCUSSION

This study was conducted to examine the influence of network competency on SME business performance with the moderating role of market turbulence and responsiveness to suppliers in the Indonesian SMEs sector. Based on statistical test results, the results of this research show that the role of network competency has a positive and significant influence in improving SME business performance in Indonesia. These findings indicate that the network capabilities built can have a positive impact in improving SMEs business performance. For example, easy access to information to reach a wider market, or can provide access to new skills. According to Abbas et al. (2019), SMEs business performance, especially in developing countries, is very dependent on networks built as an effort to maintain stable business performance.

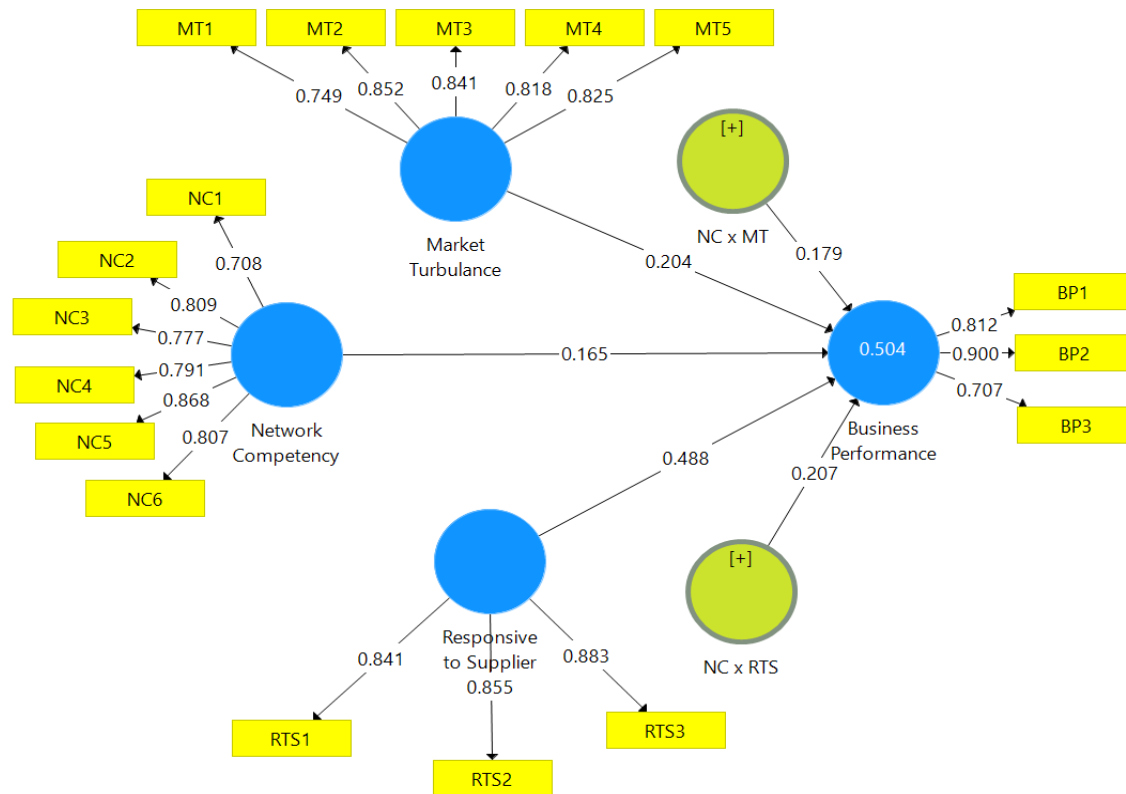


Figure 2. Output of Measurement Model

Notes: NC: Network Competency, MT: Market Turbulence, RTS: Responsiveness to Supplier, BP: Business Performance

By utilizing good network capabilities, the SMEs business sector can increase its competitiveness. The results of this research also show that in applying network capabilities as an effort to improve business performance, understanding, communication that is built, and the organization's ability to adapt are important factors that must be understood fundamentally. This is also in line with the findings from Armoti et al. (2023) that the ability to build networks is very necessary when organizations are faced with a market situation full of competition. In addition, an organization's business performance can be built on the organization's ability to build networks (Kuo et al., 2022; Johan et al., 2022). The research results show that although the role of SMEs has a contribution to a country's economy, it is still widely found that currently the SMEs industrial sector is faced with challenges that can hamper their business performance. Organizational competence in building networks can be an alternative as a suggestion in overcoming existing problems. This study supports Sarwar et al. (2021) who stated that aspects of new business creation, idea development, resource collection, implementation, and sustainable business performance can be built when organizations have the ability to establish good relationships, thus the first hypothesis can be accepted.

Then, the results of this study demonstrate the moderating role of responsiveness to suppliers that can strengthen the relationship between network competency and SME business performance. Responsiveness to suppliers can support problem solving, information needs, and provide market knowledge to the organization. As stated by Ukko et al. (2023), organizations can obtain market information through the creation of relationships

built with suppliers. Respondents consider that supplier response is very important in building business performance through effective collaboration, especially in the supply of goods. This can be realized if the contributions of both parties are well developed. The findings of this research also show that organizational performance can be improved if they are willing to establish relationships with suppliers so that they have a better picture of business trends and the inventory needed. As shown in the research model testing, responsiveness to suppliers provides a significant interaction effect both statistically and empirically on business performance. Thus, the role of responsiveness to suppliers can strengthen network competency in achieving expected business performance.

Finally, this study finds that market volatility plays a moderating role in increasing the impact of network competency on business performance. This shows that the relationship between network competency and business performance which includes sales growth can be improved when market volatility is higher. The research results are in accordance with the statement from Kin et al. (2019) who found the positive impact of the moderating role of market turbulence on SMEs business performance. The results of this research also found that SMEs must be able to diversify based on customers or product offerings to reduce dependence on one segment. This can help reduce the impact of market turmoil that occurs. Apart from that, flexibility also plays an important role in dealing with market turbulence. During business activities, it is very important to monitor the external environment so that it can help the organization to identify early signs of turbulence and take appropriate steps to deal with it.

6. IMPLICATION AND CONCLUSION

This research highlights the critical role of network competencies in the success of SMEs, particularly in developing countries where interconnectedness is vital for business success. It contributes significantly to the understanding of how network competence influences business performance amid intense competition in the SMEs sector. By examining the moderating effect of environmental aspects, this study advances the literature on how network competence can be leveraged to enhance business success, providing new insights into the dynamics of SMEs performance. It also empirically confirms that network competence and business performance are closely linked, reinforcing the importance of managing networks as a strategic asset for organizational growth and success.

The findings underscore that network competence is an essential asset for SMEs, as it directly impacts their ability to thrive and sustain growth in a competitive market. This has several important implications for economic, social, and business performance. SMEs play a crucial role in addressing unemployment, income inequality, and poverty; however, they often face high failure rates and unstable performance. Effective network management and support from policymakers are essential to overcoming these challenges and fostering SME growth.

The study also identifies several limitations that should be considered in future research. Financial constraints, such as the cost of membership or investment in collaborative technologies, can impede network competency. Time limitations, due to the focus on core business activities, and geographic constraints, which affect information exchange, also pose challenges.

Future research could explore the impact of demographic and cultural factors, as well as digital transformation, within the context of SMEs. Technology-related research often encounters substantial cultural differences at various levels, influencing innovation, creativity, and organizational risk. Future studies could investigate how digital

transformation varies across different regions or assess its support in developing countries with high market turbulence. Overall, this research contributes to the broader literature by providing a nuanced understanding of the role of network competence in SMEs' performance. It offers practical insights for improving business strategies in diverse contexts and emphasizing the need for continued exploration in this evolving field.

REFERENCES

- [1] Abbas, J., Balsalobre-Lorente, D., Amjid, M. A., Al-Sulaiti, K., Al-Sulaiti, I., & Aldereai, O. (2024). Financial innovation and digitalization promote business growth: The interplay of green technology innovation, product market competition and firm performance. *Innovation and Green Development*, 3(1), 100111. <https://doi.org/10.1016/j.igd.2023.100111>
- [2] Abbas, J., Raza, S., Nurunnabi, M., Minai, M. S., & Bano, S. (2019). The impact of entrepreneurial business networks on firms' performance through a mediating role of dynamic capabilities. *Sustainability (Switzerland)*, 11(11). <https://doi.org/10.3390/su11113006>
- [3] Abdulrab, M., Alwaheeb, M. A., Al-Mamary, Y. H. S., Alshammari, N. G. M., Balhareth, H., Soltane, H. B., & Saleem, I. (2022). Effect of entrepreneurial orientation and strategic orientations on financial and nonfinancial performance of small and medium enterprises in Saudi Arabia. *Journal of Public Affairs*, 22(2). <https://doi.org/10.1002/pa.2305>
- [4] Al-Hattami, H. M., Hashed, A. A., & Kabra, J. D. (2021). Effect of AIS success on performance measures of SMEs: Evidence from Yemen. *International Journal of Business Information Systems*, 36(1). <https://doi.org/10.1504/IJBIS.2021.112399>
- [5] Aldrich, H. E., & Wiedenmayer, G. (2019). From traits to rates: An ecological perspective on organizational foundings. In *Advances in Entrepreneurship, Firm Emergence and Growth* (Vol. 21, Issue January 1993). <https://doi.org/10.1108/S1074-754020190000021010>
- [6] Ansoff, H. I. (1975). Managing Strategic Surprise by Response to Weak Signals. *California Management Review*, 18(2), 21–33. <https://doi.org/10.2307/41164635>
- [7] Armoti, A. Al, Oswal, N., & Jawabri, A. (2023). The relationship between the recruitment strategy and the competitive advantage. *International Journal of Business Performance Management*, 24(3–4). <https://doi.org/10.1504/IJBPM.2023.132313>
- [8] Ateljević, J., Kulović, D., Đoković, F., & Bavčić, M. (2023). Business Strategy and Competitive Advantage: A Reinterpretation of Michael Porter's Work. In *Taylor Francis* (Vol. 1). <http://dx.doi.org/10.4324/9781003359173>
- [9] Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1). <https://doi.org/10.1177/014920639101700108>
- [10] Cahyaningratri, & Naylah, M. (2023). The effect of supply chain operational capabilities in consolidating organizational compatibility of supply chain process integration and business performance. *Uncertain Supply Chain Management*, 11(1). <https://doi.org/10.5267/j.uscm.2022.11.006>
- [11] Elazhary, M., Popovič, A., Henrique de Souza Bermejo, P., & Oliveira, T. (2023). How Information Technology Governance Influences Organizational Agility: The Role of Market Turbulence. *Information Systems Management*, 40(2), 148–168. <https://doi.org/10.1080/10580530.2022.2055813>

- [12] Fernandes, A. A. R., & Solimun. (2017). Moderating effects orientation and innovation strategy on the effect of uncertainty on the performance of business environment. *International Journal of Law and Management*, 59(6), 1211–1219. <https://doi.org/10.1108/IJLMA-10-2016-0088>
- [13] Goel, R. K., Mazhar, U., & Ram, R. (2022). Informal competition and firm performance: Impacts on input- versus output performance. *Managerial and Decision Economics*, 43(2). <https://doi.org/10.1002/mde.3390>
- [14] Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152. <https://doi.org/10.2753/MTP1069-6679190202>
- [15] Javalgi, R. G., Whipple, T., Ghosh, A. K., & Young, R. B. (2005). Market orientation, strategic flexibility, and performance: Implications for services providers. *Journal of Services Marketing*, 19(4). <https://doi.org/10.1108/08876040510605244>
- [16] Javeed, S. A., Latief, R., & Lefen, L. (2020). An analysis of relationship between environmental regulations and firm performance with moderating effects of product market competition: Empirical evidence from Pakistan. *Journal of Cleaner Production*, 254. <https://doi.org/10.1016/j.jclepro.2020.120197>
- [17] Jaworski, B. J., & Kohli, A. K. (1993). Market Orientation: Antecedents and Consequences. *Journal of Marketing*, 57(3). <https://doi.org/10.1177/002224299305700304>
- [18] JOHAN, A., ISFIANADEWI, D., & ANWAR, T. A. (2019). Sales Force and Intelligence Strategic in SMEs Performance: Case Study of Batik'S Enterprises in Bringharjo Yogyakarta. *Journal of Business Studies and Mangement Review*, 2(2), 128–136. <https://doi.org/10.22437/jb.v2i2.7222>
- [19] Johan, A. J., Hurriyati, R., & Dirgantara, P. D. (2022). Context of knowledge and network capabilities: a framework for achieving innovation strategies for SMEs in Bandung City. *Journal of Management and Business*, 21(2), 161. <https://doi.org/10.24123/jmb.v21i2.584>
- [20] Johnson, G., Whittington, R., Scholes, K., Angwin, D., & Regner, P. (2014). Exploring Strategy. In *Pearson Education Ltd*. <https://doi.org/10.1017/CBO9781107415324.004>
- [21] Kin, W. K., Anjam, M., Mughal, S. A., & Toh, S. Y. (2019). Does market turbulence moderate the impact of relationship competency on small retail firm's performances: A study on small retail businesses among malaysian Chinese entrepreneurs. *MACS 2019 - 13th International Conference on Mathematics, Actuarial Science, Computer Science and Statistics, Proceedings*, 1–7. <https://doi.org/10.1109/MACS48846.2019.9024816>
- [22] Kuo, Y-C., Wu, Y-M., & Liu, Y-X (2022). Identifying Key Factors for Sustainable Manufacturing and Development. *Review of Integrative Business and Economics Research*11(1), 30-50.
- [23] Li, Y., Cui, L., Wu, L., Lowry, P. B., Kumar, A., & Tan, K. H. (2023). Digitalization and network capability as enablers of business model innovation and sustainability performance: The moderating effect of environmental dynamism. *Journal of Information Technology*, 0(2), 1–29. <https://doi.org/10.1177/02683962231219513>
- [24] Memon, A. K., Junejo, D. I., Bughio, A. Q., & Saeed, S. (2021). Strategic Supplier Partnership and Responsive Supply Chain in Covid-19: The Mediating Role of E-Procurement. *International Research Journal of Management and Social Sciences*, 2(2).

- [25] Meng, Q., Yan, Z., Abbas, J., Shankar, A., & Subramanian, M. (2023). Human–Computer Interaction and Digital Literacy Promote Educational Learning in Pre-school Children: Mediating Role of Psychological Resilience for Kids’ Mental Well-Being and School Readiness. *International Journal of Human-Computer Interaction*. <https://doi.org/10.1080/10447318.2023.2248432>
- [26] Michaelides, P. G., Tsonas, E. G., Konstantakis, K. N., & Xidonas, P. (2019). The impact of market competition on CEO salary in the US energy sector. *Energy Policy*, *132*. <https://doi.org/10.1016/j.enpol.2019.05.017>
- [27] Mintzberg, H., Ahlstrand, B., & Lampel, J. (1998). *Strategy Safari: A Guided Tour through the Wilds of Strategic Management*. In *Barcelona*. Thee Free Press.
- [28] Nikolaev, M. G. (2018). Strategic company management in the digital business environment. *European Journal of Management Issues*, *26*(3–4). <https://doi.org/10.15421/191809>
- [29] Perdomo-Charry, G., Clegg, S., & Schweitzer, J. (2023). Do start-up ecosystems foster start-up performance? The moderating role of network learning capability. *International Journal of Entrepreneurship and Innovation*, *40*. <https://doi.org/10.1177/14657503231169889>.
- [30] Ruangchoengchum, P., & Dechkerd, P. (2024). Measuring Efficiency of Information Flow within Supply Chain: A Case Study on Smoked Rubber Sheet Production in Thailand. *Review of Integrative Business and Economics Research*, Vol. 13(4), 18-31.
- [31] Sajilan, S. (2015). Cultural Orientations , Entrepreneurial Competencies and SMEs Business Success : The Contingent Roles of Environmental Turbulence and Network Competence. *Review Of Integrative Business Research and Economics*, *4*(2), 20–35. http://sibresearch.org/uploads/2/7/9/9/2799227/riber_k15-003_20-35.pdf
- [32] Saleh, M. H., & Al-Hakimi, M. A. (2022). The Effect of Marketing Ethics as a Moderator on the Relationship Between Competitor Orientation and SMEs’ Performance in Saudi Arabia. *SAGE Open*, *12*(3). <https://doi.org/10.1177/21582440221119454>
- [33] Sarwar, Z., Khan, M. A., Yang, Z., Khan, A., Haseeb, M., & Sarwar, A. (2021). An Investigation of Entrepreneurial SMEs’ Network Capability and Social Capital to Accomplish Innovativeness: A Dynamic Capability Perspective. *SAGE Open*, *11*(3). <https://doi.org/10.1177/21582440211036089>
- [34] Shah, N., Zehri, A. W., Saraih, U. N., Abdelwahed, N. A. A., & Soomro, B. A. (2024). The role of digital technology and digital innovation towards firm performance in a digital economy. *Kybernetes*, *53*(2). <https://doi.org/10.1108/K-01-2023-0124>
- [35] Solano Acosta, A., Herrero Crespo, Á., & Collado Agudo, J. (2018). Effect of market orientation, network capability and entrepreneurial orientation on international performance of small and medium enterprises (SMEs). *International Business Review*, *27*(6). <https://doi.org/10.1016/j.ibusrev.2018.04.004>
- [36] Tehseen, S., Ahmed, F. U., Qureshi, Z. H., Uddin, M. J., & Ramayah, T. (2019). Entrepreneurial competencies and SMEs’ growth: the mediating role of network competence. *Asia-Pacific Journal of Business Administration*, *11*(1), 2–29. <https://doi.org/10.1108/APJBA-05-2018-0084>
- [37] Todeva, E. (2006). *Business Newtorks*. Routledge.
- [38] Ukko, J., Saunila, M., Sore, S., Rantala, T., & Nasiri, M. (2023). Exploring the Effect of E-Business Operations on E-Business Performance: Moderating Effect of Responsiveness to the Supplier. *SAGE Open*, *13*(3), 1–14. <https://doi.org/10.1177/21582440231191793>

- [39] Vučković, M., Medić, Z., & Marković, D. (2020). E-learning for entrepreneurial skills in a digital business environment. *International Review*, 1–2. <https://doi.org/10.5937/intrev2001027v>
- [40] Zinchenko, O., Privarnikova, I., & Samoilenko, A. (2022). ADAPTIVE STRATEGIC MANAGEMENT IN A DIGITAL BUSINESS ENVIRONMENT. *Baltic Journal of Economic Studies*, 8(3). <https://doi.org/10.30525/2256-0742/2022-8-3-78-85>
- [41] Zou, W., Brax, S. A., & Rajala, R. (2021). The effects of competence-based, expressive and collaborative service performance on the b2b service relationship. *Technology Innovation Management Review*, 11(5). <https://doi.org/10.22215/TIMREVIEW/1439>.