






“Factors affecting performance excellence in Indonesian state-owned enterprises”

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FACTORS AFFECTING PERFORMANCE EXCELLENCE IN INDONESIAN STATE-OWNED ENTERPRISES

Abstract

State-owned enterprises (SOEs) have a strategic position as architects of public services, balancing large private powers, helping to foster small businesses or cooperatives, and a considerable basis of state revenue in numerous forms of taxes and dividends. For Indonesia to compete in the global market, its economic actors (private sector, SOEs, and cooperatives) must amplify their performance. This paper aims to explore the factors affecting performance excellence in Indonesian SOEs, namely business environment and innovation capability through business strategy. Data were obtained from questionnaires distributed to 100 directors/managers representing SOEs in 12 clusters. The partial least squares structural equation modeling (PLS-SEM) procedures were operated to evaluate the path coefficients and identify the pivotal factors of each construct using SmartPLS. The results exhibited that the business environment ($\beta = 0.357, p < 0.05$) and innovation capability ($\beta = 0.518, p < 0.05$) positively and significantly affected Indonesian SOEs' business strategy. Meanwhile, business environment ($\beta = 0.263, p < 0.05$), innovation capability ($\beta = 0.273, p < 0.05$), and business strategy ($\beta = 0.459, p < 0.05$) positively and significantly affected SOEs performance excellence. Moreover, business strategies can partially mediate the effect of the business environment ($\beta = 0.164, p < 0.05$) and innovation capability ($\beta = 0.238, p < 0.05$) on performance excellence. An important implication of this study is that to maintain and improve performance excellence, SOEs must first focus on the capability of innovation to initiate the implementation of business strategies by constantly addressing the business environment.

Keywords

business environment, business strategy, innovation
capability, performance excellence, state-owned
enterprises

JEL Classification

L10, L32, L25, O30

INTRODUCTION

In the present era of globalization, the corporate landscape is witnessing heightened competition, resulting in rapid transformations that wield substantial influence on the economy. Consequently, implementing prominent initiatives to enhance organizational performance has become fundamental for all enterprises. Every company aspires to elevate its competitive prowess to achieve world-class competitiveness (Petrillo et al., 2019). For sustained success, businesses must possess the capacity to adapt and react effectively to changing conditions and competitive pressures over time (Dereli, 2015). As one of the actors in Indonesia's economic system, state-owned enterprises (SOEs) play a vital strategic role by administering public services, maintaining equilibrium amidst influential private entities, fostering the growth of small businesses and cooperatives, and serving as a substantial revenue generator for the government through diverse forms of taxes and dividends. The more sumptuous role of SOEs must be fortified to recover the concept of Indonesia Incorporated, as the efforts to grow the SOEs and their private partners to boost the country's economy (Trihatmoko & Susilo, 2023).

The current issue is how SOEs can help developing market countries overcome numerous development challenges. Outstanding SOEs hold significant potential as catalysts for fostering inclusive economic growth and development within emerging markets. In numerous developing nations, such as Indonesia, SOEs play a predominant role in the business world. Despite concerns surrounding their average operational performance, their economic contribution remains substantial (Pranoto, 2017). SOEs from different countries increasingly compete with private enterprises globally as they participate in trade and investment integration (Kowalski et al., 2013). On the other hand, SOEs still need to realize people's expectations of obtaining great benefits from their existence. Many SOEs must adequately execute their functions and duties (Iqbal et al., 2020).

SOE performance measurement is still focused on financial output only. To that end, the Ministry of SOEs, since 2012, has been applying the balanced scorecard perspectives and Criteria for Excellent Performance Assessment (Kriteria Penilaian Kinerja Unggul/KPKU) adopted from the Malcolm Baldrige Criteria for Performance Excellence. The main reasons to implement the criteria include targeting capital expenditure, assessing the number of Indonesian SOEs in the Global Fortune 500, measuring their contribution to state revenue, and evaluating their performance excellence scores.

The measurement of performance excellence at the Ministry of SOEs must show the company's strategic position. The business strategy has yet to support the assessment of performance excellence fully. The business environment (external and internal) has not supported business strategy in SOEs, so the impact on sustainable performance excellence could be much higher. Innovation capability in SOEs has yet to endow business strategy, so its impact on sustainable performance excellence is relatively lower. Thus, this study examines in more depth the influence of business environment and innovation capabilities on business strategy and the impact on the performance excellence of SOEs in Indonesia in a sustainable manner.

1. LITERATURE REVIEW AND HYPOTHESES

This study abides strategic management as a grand theory (Wheelen et al., 2017), which is crystalized to dynamic capability (Chowdhury & Quaddus, 2017; Teece, 2018) and performance management (Ndevu & Muller, 2018) as a middle-range theory. This dynamic capability is related to environmental scanning in the overall environment faced by an organization, which can be divided into three conditions, i.e., the internal (micro) environment, the macro environment, and the industrial environment. The industrial environment in this context is part of the mezzo environment.

Performance excellence involves balancing stakeholder needs and expectations while improving operational, customer-related, financial, and market performance for long-term organizational success. Business excellence is an experience in which organizations continually develop and strengthen their management systems and processes to deliver excellent results for their stakeholders.

Performance excellence is a framework applicable to any organization seeking to enhance its overall performance. While the essential traits, aims, and purposes of the criteria have remained consistent, they have evolved substantially over time to assist organizations in tackling contemporary economic and market challenges and capitalizing on opportunities. Performance excellence measurement in Indonesian SOEs refers to the following criteria: (1) leadership, (2) strategic planning, (3) customer and market focus, (4) measurement-analysis-and-knowledge-management (MAKM), (5) workforce focus, (6) operational focus, and (7) SOE results (Brown, 2017; Susanto, 2018).

Several phenomena show that performance excellence is influenced by various factors, especially business strategy, business environment, and innovation capability (Le et al., 2020; Wang & Chen, 2013; Yang, Wang, et al., 2019; Yuan et al., 2016). SOEs' business strategy will determine the level of performance (Adiputra et al., 2020; Shahab et al., 2023). Business strategy can be influenced by business environment, especially by strategic intervention from the govern-

ment (Arif et al., 2022; Li et al., 2022). The previous outcomes confirm that business environment (external and internal) can influence company performance (Hermanto et al., 2021) directly or through business strategy (Tajeddini & Trueman, 2016). Moreover, innovation capability can be a key driver in business strategy and performance excellence of SOEs (Aman, 2019; Zhang et al., 2022).

Business strategy refers to how a company competes in an industry or market (Patel & Cespedes, 2016). It focuses on a particular business unit and learns how to increase its competitiveness, such as choosing a more attractive segmented market (Yang et al., 2021). Such a strategy is a way for companies to focus on particular business units interacting with the business environment to achieve competitive advantage by increasing their competitiveness to obtain performance excellence (Suoniemi et al., 2020). Business strategy can consist of (1) cost-based strategy (as strategic planning), (2) differentiation-based strategy (to create competitive advantage), and (3) value-based strategy (through an organizational type approach).

The term “environment” refers to anything that surrounds a system. The business environment combines internal and external factors that affect the company’s operations, including employees, customers, management, supply, demand, and business regulation. According to Cherunilam (2021), the definition of the business environment is environmental forces that influence business or business decisions within the company’s internal and external factors. External forces can be classified as micro-environment (task/operations) and macro-environment (general/remote). The micro-environment includes organizational-specific factors (i.e., factors that directly and closely affect the firm) and the macro-environment common to all businesses or industries. This study defines the business environment as a combination of internal (micro), external (macro), and industrial environment (mezzo) that influence business activities and decisions, including operational and supporting activities (Straková et al., 2021). The business environment refers to (1) the political environment, (2) the economic environment, (3) the technological environment, (4) the uniqueness of complementary assets, (5) organizational management routines, (6) the uniqueness of HR/competence, and (7) specific industrial environment.

A company’s capabilities are noteworthy in providing and maintaining its competitive advantage and in all strategy implementation. For an asset to be a competitive advantage for a company, it must be valuable, rare, difficult to imitate, and difficult to replace (Bromiley & Rau, 2016). Innovation capability is the skills and knowledge required to absorb, master, and improve existing technologies to create new ones (Dhliwayo & Chebo, 2022). Innovation capability is a company’s ability to continuously cope with complex and changing situations by using knowledge and ideas in new products, processes, and systems to achieve superior technological and management performance. Innovation capability is measured by (1) human resources (HR) innovation, (2) technological innovation, (3) process and product innovation, (4) marketing innovation, and (5) research and development (R&D) innovation.

The research focus is on the study of performance excellence in SOEs by involving business strategy variables based on the business environment and innovation capabilities. It is emphasized in the research position that the business environment and innovation capability affect performance excellence directly and through business strategy. Previous research shows that the business environment influences business strategy (Rochmatullah et al., 2023; Zhu et al., 2016). Other research shows that the uncertainty of the business environment affects business strategy (Iqbal et al., 2020). Business environmental factors affect the content of the business strategy (Wang et al., 2021). In previous studies, the relationship between innovation capability and business strategy has been discussed. These various studies suggest that innovation capability is closely related to the implemented business strategy (Tutar et al., 2015; Wang et al., 2021; Yang, Jiang, et al., 2019). Several previous studies have confirmed the link between innovation capability and performance excellence. These studies confirm that innovation capability can influence performance excellence in various sectors, especially SOEs (Ahmad et al., 2019; Chiganze & Sağsan, 2022; Citrasari et al., 2022). Propositions related to the relationship between business strategy and performance excellence can be traced from various previous studies (Adámek et al., 2017; Androniceanu, 2017; Tajeddini & Trueman, 2016).

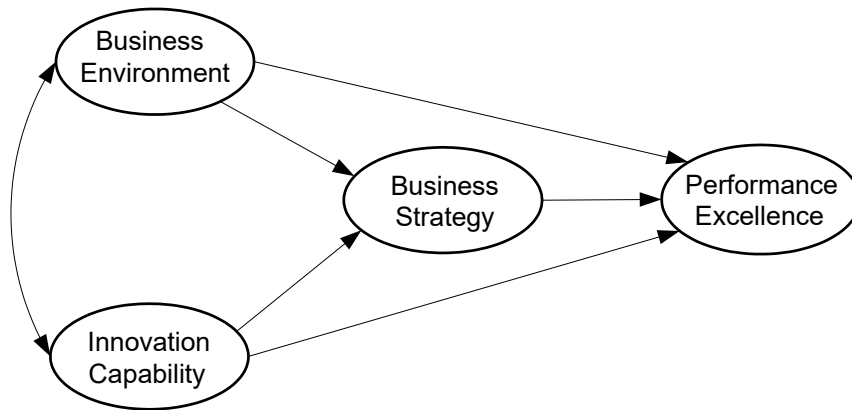


Figure 1. Research model

Based on the framework presented in Figure 1, this study aims to analyze the effect of business environment and innovation capability on performance excellence of SOEs directly and through the business strategy.

This study proposes five hypotheses to test the direct effects and two hypotheses to test the indirect effects:

- H1: Business environment positively affects business strategy.*
- H2: Innovation capability positively affects business strategy.*
- H3: Business environment positively affects performance excellence.*
- H4: Innovation capability positively affects performance excellence.*
- H5: Business strategy positively affects performance excellence.*
- H6: Business environment positively affects performance excellence through business strategy.*
- H7: Innovation capability positively affects performance excellence through business strategy.*

2. METHODS

The study adopted a quantitative method to analyze and look for the influence between variables: the impact of business environment and innova-

tion capability on business strategy and their implications for performance excellence. Business environment (with seven dimensions) and innovation capability (with five dimensions) are exogenous latent variables. The position of the business strategy (with three dimensions) is a mediating latent variable, while performance excellence (with seven dimensions) is an endogenous latent variable. Table 1 exposes the operationalization of variables.

Table 1. Operationalization of variables

Variables	Dimensions
Business Environment (BE)	Political environment
	Economic environment
	Technological environment
	Uniqueness of complementary assets
	Organizational management routines
	Uniqueness of HR/competence
	Specific industrial environment
Innovation Capability (IC)	HR innovation
	Technological innovation
	Process and product innovation
	Marketing innovation
	R&D innovation
Business Strategy (BS)	Cost-based strategy
	Differentiation-based strategy
	Value-based strategy
Performance Excellence (PE)	Leadership
	Strategic planning
	Customer and market focus
	Measurement, analysis, and knowledge management (MAKM)
	Workforce focus
	Operational focus
	SOE results

The population of this study is the management (Directors or D-1 who represent them) in 100 SOEs that have implemented the Criteria for

Excellent Performance Assessment in 12 clusters: (1) energy and oil and gas industry cluster; (2) mineral and coal industry cluster; (3) plantation and forestry industry cluster; (4) food and fertilizer industry cluster; (5) health industry cluster; (6) manufacturing industry cluster; (7) financial services cluster; (8) insurance services and pension fund cluster; (9) telecommunications and media cluster; (10) infrastructure cluster; (11) logistics cluster; and (12) tourism and support cluster.

They deserve to be used as data sources because they already understand the company's strategic management process related to the business environment, innovation capability, business strategy, and performance excellence models. The questionnaire was made in the form of a list of closed written questions with numerical scale 1 to 5, and distributed (directly and using Google Forms) in August-October 2022, after testing the validity and reliability of the instrument. To analyze the data, the paper used descriptive analysis to describe each variable in terms of average score. The study also used the partial least squares structural equation modeling (PLS-SEM) procedure to investigate the formulated hypotheses.

3. RESULTS

Table 2 shows 12 clusters of the 100 state-owned enterprises (SOEs). The study also analyzed the profile of respondents and the descriptive analysis for business environment, innovation capability, business strategy, and performance excellence of the SOEs. After that, the paper revealed the measurement and structural models. The respondents' profiles were based on gender, age, and tenure (length of service) in SOEs (Table 3).

Table 2. 12 clusters of state-owned enterprises (SOEs)

Source: Ministry of State-owned Enterprises (2022).

No.	Clusters	Frequency
1.	Energy and Oil and Gas Industry Cluster	4
2.	Mineral and Coal Industry Cluster	3
3.	Plantation and Forestry Industry Cluster	2
4.	Food and Fertilizer Industry Cluster	10
5.	Health Industry Cluster	3
6.	Manufacturing Industry Cluster	15
7.	Financial Services Cluster	10

No.	Clusters	Frequency
8.	Insurance Services and Pension Fund Cluster	6
9.	Telecommunications and Media Cluster	7
10.	Infrastructure Cluster	16
11.	Logistics Cluster	16
12.	Tourism and Support Cluster	8
Total		100

Table 3. Respondent profile

	Frequency	Percentage
Gender		
Male	75	75.00%
Female	25	25.00%
Age		
Under 30 years old	9	9.0%
30-40 years old	26	26.0%
41-50 years old	29	29.0%
51-60 years old	35	35.0%
Older than 60	1	1.0%
Length of Service		
Under 6 years	17	17.0%
6-10 years	14	14.0%
11-15 years	15	15.0%
16-20 years	12	12.0%
21-25 years	18	18.0%
More than 26 years	24	24.0%
Total	100	100.0%

Gender distribution informs that men still dominate policymakers in SOEs. Based on age, most respondents are aged 30-40 years to 51-60 years. This condition indicates that decision-makers in SOEs are of a mature age. As for the length of service, it is evenly distributed with certain variations. There were 24 respondents with more than 26 years of service, and the rest were spread between 12 to 18 respondents for each length of service. This informs that the length of work can be the main feature in the respondent profile. Based on the information from the cross-tabulation of the characteristics of the respondents, it can be seen that the male group in the age range of 51-60 with a length of service of more than 26 years is the most significant number of respondents (13 respondents). The male group in the age range of 41-50 years with 21-25 years of service (9 respondents) also had more respondents than the other groups. Regarding the female gender, the most numerous groups are those aged between 51-60 years with more than 26 years of working experience (6 respondents).

Table 4. Convergent validity, discriminant validity, and construct reliability

Construct	ρ_c	α	AVE	Fornell-Larcker			
				BE	IC	BS	PE
Business Environment (BE)	0.940	0.925	0.691	0.811			
Innovation Capability (IC)	0.950	0.930	0.827	0.761	0.888		
Business Strategy (BS)	0.938	0.912	0.791	0.752	0.790	0.894	
Performance Excellence (PE)	0.951	0.939	0.734	0.816	0.836	0.873	0.899

Note: ρ_c – composite reliability; α – Cronbach's Alpha; AVE – Average Variance Extracted.

Analysis of the results and discussion of testing the measurement model (outer model) for each construct in the performance excellence model and the factors that influence it can be seen from the quality criteria of (1) convergent validity, (2) discriminant validity, (3) construct reliability, and (4) the loading value (Table 4). Convergent validity, in this case, is measured through AVE, which refers to the level of measurement of latent constructs that should have a specific relationship based on each dimension or indicator. An AVE value greater than 0.5 indicates that each dimension or indicator can appropriately measure a latent construct (Hair et al., 2014). Convergent validity, in this case, is measured through AVE, which refers to the level of measurement of latent constructs that should have a specific relationship based on each dimension or indicator. An AVE value greater than 0.5 indicates that each dimension or indicator can appropriately measure a latent construct. The values of construct reliability are measured by composite reliability and Cronbach's alpha.

Based on the results of this measurement, all constructs are proven to be related to other dimensions in each of these constructs. In other words, each dimension can measure its construct well. According to Hair et al. (2014), the purpose of assessing discriminant validity is to ensure that all reflective constructs have the strongest relationship with each indicator compared to other constructs in the PLS model. All values for each construct reliability for ρ_c and α show an ideal value, which is above 0.7, which means that the reliability of this construct is indeed consistent in its measurement (for each construct studied). This loading value is related to the reliability of the indicator (here called the dimension because it is first-order), which is the proportion of the variance that can be explained by the latent variable, which requires that the outer loading value should be greater than 0.7 or at least more than 0.5 and if the value is less

than 0.4 then the indicator can be discarded (Hair et al., 2014) because it can usually interfere with the reliability of the construct and indicator as a whole. Table 5 shows that all dimensions in each construct have a loading value > 0.7 , meaning each dimension can reflect each construct.

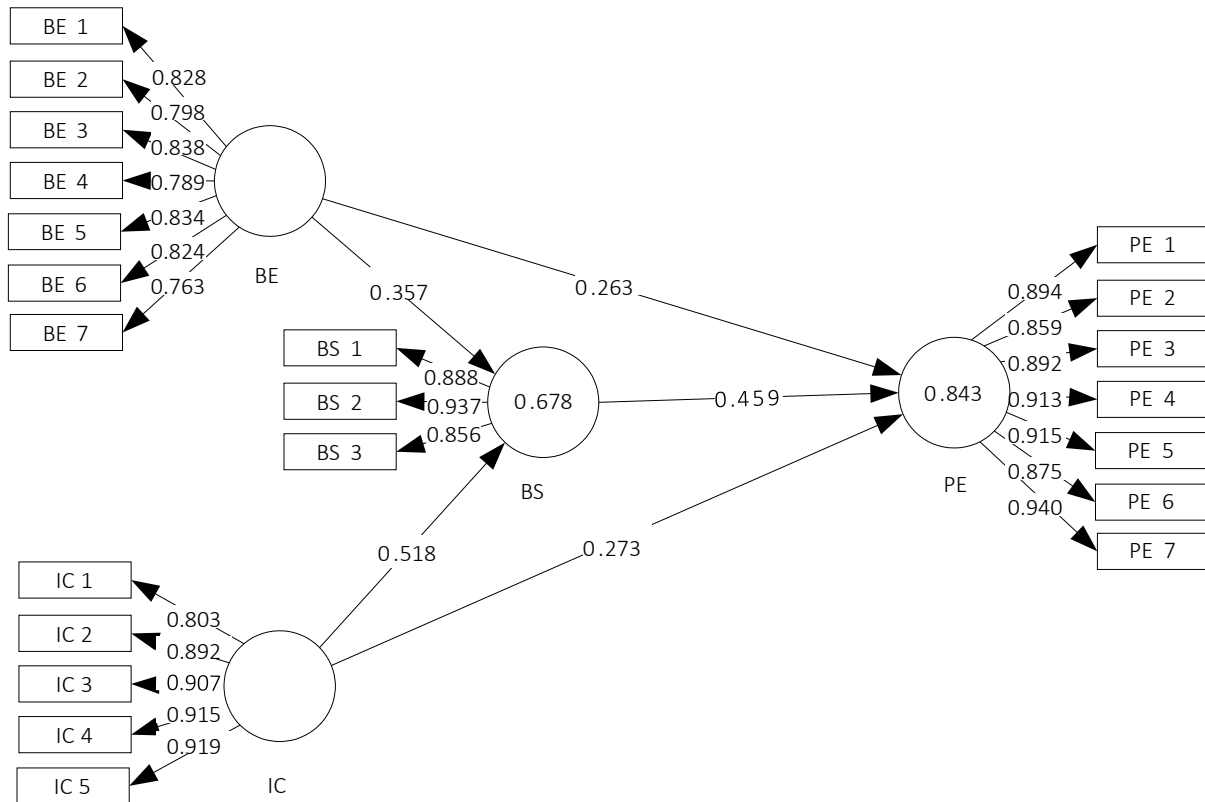
Table 5. Loading factors

Construct	BE	IC	BS	PE
BE1	0.828			
BE2	0.798			
BE3	0.838			
BE4	0.789			
BE5	0.834			
BE6	0.824			
BE7	0.763			
IC1		0.803		
IC2		0.892		
IC3		0.907		
IC4		0.915		
IC5		0.919		
BS1			0.888	
BS2			0.937	
BS3			0.856	
PE1				0.894
PE2				0.859
PE3				0.892
PE4				0.913
PE5				0.915
PE6				0.875
PE7				0.940

Note: BE = Business Environment; IC = Innovation Capability; BS = Business Strategy; PE = Performance Excellence.

The results of the measurement model analysis prove that all the measured constructs meet the requirements for further analysis using the structural model. Based on the calculation results of the structural model, the performance excellence model, which is influenced by the business environment, innovation capability, and business strategy, is portrayed in Figure 2.

This direct effect model (using a bootstrap procedure to test hypotheses 1 and 2) tests the structur-



Note: BE = Business Environment; IC = Innovation Capability; BS = Business Strategy; PE = Performance Excellence.

Figure 2. Performance excellence model

al model hypotheses partially from BE → BS, from IC → BS, BE → PE, IC → PE, and BS → PE. This direct influence model can be presented in two stages: first, the influence of BE → BS and IC → BS, and second, the influence from BE → PE, IC → PE, and BS → PE. Table 6 shows that the effect of BE on SB is 0.357 (t-value = 2.222 and p < 0.05), while the effect of IC on BS is 0.518 (t-value = 5.985 and p <

0.05). The two path coefficients are proven significant, and both hypotheses can be accepted.

The path coefficient value indicates that the influence of IC on BS is greater than that of BE on BS. This condition emphasizes that innovation capability has a vital role in adjusting the business strategy of SOEs. Table 7 clarifies the testing re-

Table 6. Hypotheses testing effects of BE and IC on BS

Effect	Coefficient	Standard bootstrap results				Hypotheses
		SE	t-value	p (2-sided)	p (1-sided)	
BE → BS	0.357	0.161	2.222*	0.027	0.000	Accepted
IC → BS	0.518	0.152	5.985*	0.001	0.000	Accepted

Note: *significant. BE = Business Environment; IC = Innovation Capability; BS = Business Strategy.

Table 7. Hypotheses testing effects of BE, IC, and BS on PE

Effect	Coefficient	Standard bootstrap results				Hypotheses
		SE	t-value	p (2-sided)	p (1-sided)	
BE → PE	0.263	0.076	4.573*	0.001	0.000	Accepted
IC → PE	0.273	0.088	3.079*	0.002	0.000	Accepted
BS → PE	0.459	0.078	5.858*	0.000	0.000	Accepted

Note: *significant. BE = Business Environment; IC = Innovation Capability; BS = Business Strategy; PE = Performance Excellence.

Table 8. Mediation effect

Effect	Coefficient	Standard bootstrap results: Indirect Effect				Hypotheses
		SE	t-value	p (2-sided)	p (1-sided)	
BE → BS → PE	0.164	0.078	2.075*	0.038	0.017	Accepted
IC → BS → PE	0.238	0.076	2.949*	0.003	0.000	Accepted

Note: *significant. BE = Business Environment; IC = Innovation Capability; BS = Business Strategy; PE = Performance Excellence.

sults for hypotheses 3, 4, and 5. All hypotheses are supported. The value of the path coefficient shows that the direct influence of BS on PE is the greatest, followed by the direct influence of IC on PE and finally BE on PE. These findings show the vital role of BS in improving PE as a whole.

The mediation effect test proves that BS can be a mediating or intervening variable that is “partial mediation” in the effect of BE on PE and IC on PE. These findings confirm hypotheses 6 and 7 (Table 8).

4. DISCUSSION

The findings confirm that business environment positively affects business strategy. The right business environment can encourage the implementation of business strategies in SOEs. The current business environment in SOEs refers more to the internal technology environment. This aspect of the internal technological environment relates to the level of relevance of technological capabilities in supporting the strengthening of the company’s business processes and market needs. This aspect of the internal technology environment is also related to the smoothness of technological processes in strengthening the company’s business processes, namely the technology used in internal processes to anticipate market needs. In addition, it can be seen here regarding the level of technology dominance in work to strengthen the company’s business processes under the main characteristics of the company’s operations, including basic technology, applied technology, and development technology (Tjahjadi et al., 2019).

These aspects’ importance can encourage business strategy formation, especially in implementing a differentiation-based strategy. This differentiation-based strategy is strengthened by product differentiation in supporting company performance, including goods, services,

and information. Apart from that, another aspect that is also important is the level of differentiation in product delivery in supporting company performance, which includes delivery methods, including goods, services, and information to the market. The level of marketing differentiation also supports this strategy to support company performance by focusing on marketing channels. The level of differentiation of infrastructure facilities in supporting company performance according to the core business and characteristics of SOEs also supports implementing a differentiation-based strategy (Silva, 2015).

This study finds that the SOE business environment focusing on the internal environment of technology will encourage the implementation of business strategies with a focus on differentiation-based strategies. In this case, each SOE uniquely implements the technology used to support each business process. Currently, business processes in SOEs cannot be separated from information technology related to strategies at each business level. These findings confirm the research results of Drnevich and Croson (2013) that information technology (IT) is essential for business achievement because it directly influences the devices through which IT creates and obtains value for profit. Here, IT is an integral part of a company’s business-level strategy. This finding also confirms the findings of Prajogo (2016) regarding the need for a strategic fit between innovation capabilities and the business environment in achieving the performance of the enterprises. The role of the business environment (dynamism and competitiveness) as a contingency factor is vital in influencing the effectiveness of numerous types of innovation strategies (in terms of products and processes) in leading to business performance.

Furthermore, the results show that innovation capability positively affects business strategy.

These findings indicate that innovation capability can drive the implementation of business strategy in SOEs. The current innovation capabilities in SOEs are generally more dominated by marketing and R&D innovation. Essential aspects in shaping marketing innovation are the level of innovation in introducing new products in the company today, both limitedly and widely. More than that, the level of innovation in evaluating new products in SOEs is currently essential in shaping marketing innovation, especially related to instrument innovation and the evaluation process. Determining the current product selling price, related to the market price and purchasing power, has influenced marketing innovation. The critical aspects in shaping R&D innovation are innovation in identifying market segments (both existing and new). In addition, in expanding the market network, SOEs need innovation to focus on new markets.

The findings of this study confirm the results of Pisano (2015) that innovation must go hand in hand with corporate strategy. Innovation capability can improve business strategy through what is expected in innovation to create value for external and internal parties of the company. Regarding the effect of innovation capability on business strategy, Vega-Jurado et al. (2015) emphasized that integrating appropriate technology, management, and marketing innovation can increase the adoption of business strategies more effectively. The best innovation capability can be achieved with the support of the business environment in adjusting to its business strategy. Marketing innovation and R&D determine the overall innovation capability development, especially in developing new products and business processes. Marketing innovation and R&D innovation can also increase the creativity of individuals, groups, and organizations in achieving a company's competitive advantage (Xiang, 2022).

The findings also show that business environment positively affects performance excellence. These findings indicate that business environment can encourage the achievement of SOEs' performance excellence. The internal environmental aspects of technology that cover SOEs generally determine the formation of the busi-

ness environment in SOEs so that it contributes significantly to improving performance excellence, especially in the aspect of results (output), which consists of company effectiveness, company efficiency, sources of company satisfaction, company adaptability, and company survival ability.

Ferreira et al. (2019) have long emphasized the standing of performance measurement in a company (including its subsidiaries), which is evaluated in a framework to assess numerous performance indicators such as critical success factors (KSF), key performance factors (KPF), and key performance indicators (KPIs). The framework or process flow results can help companies build trust, cooperation, and coordination in certain business environments. The findings of this study also strengthen the results of Nayal et al. (2022) regarding the relationship between business environment and performance, which explores in depth the business environment, competitive priorities, and performance based on business strategy. The business environment factors here show a particular influence on the implementation of business strategy including business budgeting, competitive intensity, and market and institutional dynamism. Companies that consistently carry out business strategies by considering environmental dynamics are able to increase various priorities in competition and achieve the expected performance, compared to companies that do not consistently carry out business strategies.

Next, the study found that innovation capability positively affects performance excellence. The findings indicate that innovation capability can increase the achievement of performance excellence in SOEs. This study's findings align with previous studies examining the relationship between innovation capability and superior performance, directly or through business strategy. In this case, innovation capability is an important determining factor in improving the performance of an organization (Saunila et al., 2014). With the proper measurements, companies can position the most appropriate innovations to improve company performance in the short, medium, and long term on an ongoing basis.

Innovative companies are proven to have higher productivity and growth levels than companies that do not focus on innovation. So, innovation is needed on an organizational scale as an essential requirement in improving company performance and firm value (Khin & Ho, 2020). Organizational innovation prepares a suitable environment for other types of innovation and has a strong and direct impact on innovative performance (Al-Khatib et al., 2022). Previous studies confirm this study's findings that innovation capability positively affects performance excellence. Its influence through business strategy can strengthen the position of innovation capability in influencing performance excellence more (Ahmad et al., 2019; Chiganze & Sağsan, 2022; Citrasari et al., 2022).

Related to the positive influence of business strategy on performance excellence, it was found that the right business strategy can encourage achieving performance excellence in SOEs. Business strategy has the most dominant influence on the performance excellence of SOEs. This also means that performance excellence in SOEs will depend heavily on implementing its business strategy. Without a business strategy formulated and implemented correctly, it will be difficult for SOEs' performance to be excellent. This finding aligns with various previous studies on the effect of business strategy on performance excellence. The research results from Yuliansyah et al. (2016) confirm that an organization or company can outperform its competitors if it pursues a cost leadership or differentiation strategy aligned with and complements its internal dynamics. In addition, these findings also confirm the results of González-Rodríguez et al. (2018) regarding the relationship between business strategy and company performance in the service sector. The lack of direct influence of industrial strength on firm performance is due to the specific characteristics of the service sector. This study's findings align with what has been studied by Lestari et al. (2020) regarding the development of concepts originating from empirical research models to build superior competitiveness and achieve optimal performance. There is also a strong link between innovation, business strategy, and competitive advantage and performance.

Business strategy can function as a mediating variable in the influence of business environment on performance excellence in SOEs in Indonesia. The business environment will better affect performance excellence with the right business strategy. This condition indicates that the influence of business environment on performance excellence is strong, meaning that it directly impacts improving performance excellence, and its influence can also be more decisive through business strategy. The most influential aspect in the SOE business environment is internal technology, primarily related to developing digital information and communication technology. ICT development in SOEs can be better through planning and implementing a differentiation strategy as an approach developed by SOEs to produce unique products/services for its consumers, which are different from competitors in similar industries. These strategies can be complemented by implementing other strategies, namely the speed and flexibility strategies of the SOEs themselves, to capture all business opportunities (Chen, 2019). Speed strategy is the speed in responding to market needs through excellence, suitability, and observability. At the same time, the flexibility strategy is the ability to follow the target market, which is assessed from the ability to adjust, react, and negotiate (Yi et al., 2017).

The effect of innovation capability on performance excellence in SOEs is also strong, in the sense that it can influence directly or can be stronger through business strategy. Innovation capabilities that currently need to be developed by SOEs in supporting business strategy and performance excellence are R&D innovations focusing on products and markets and marketing innovations focusing on superior products/services. SOEs need to develop this innovation capability to remain competitive. Because the business environment is constantly changing, SOEs must adapt by developing R&D and marketing innovations to create new products and services that meet consumer needs and preferences so that SOEs' products/services stay ahead.

Through these innovations, SOEs can improve the efficiency of production processes and reduce cost strategies. Applying new technology in SOEs can improve process automation, increase efficiency, and reduce waste. Thus, this can result in a cost-saving strategy in making products more

affordable and attractive to consumers. Because SOEs are usually responsible for providing services to the public, SOEs need to develop innovations that align with business strategies to meet the various needs of the wider community. Efforts to develop technology in support of new and re-

newable energy can be one of the innovation capabilities in driving SOE performance excellence in Indonesia through the right business strategy. Future studies should focus on how innovation capabilities can boost performance excellence in specific sectors.

CONCLUSION

This study explored the effect of the business environment and innovation capability directly and through business strategy on the performance excellence of state-owned enterprises (SOEs) in Indonesia. It also revealed that innovation capability tended to significantly influence SOEs' business strategy and performance excellence (directly and indirectly) compared to the influence of the business environment.

This showed the importance of innovation capability in utilizing the business environment to jointly formulate and implement the right business strategy in encouraging the implementation and achievement of SOE performance excellence. Improvements in innovation capability and the business environment could enhance the formulation and implementation of business strategies in realizing SOEs' performance excellence. Business strategy was fundamental in influencing the performance excellence of SOEs. This business strategy could be a bridge for the business environment and innovation in increasing performance excellence. This showed that business strategy could mediate or intervene for the business environment and innovation capabilities in influencing performance excellence in SOEs. Several dimensions of each variable required unique actions to be sustained, adjusted, developed, and enhanced.

In essence, this study examined the effect of the external and the internal environment directly on performance excellence and through business strategy in SOEs, which had not been studied much by previous research. This paper also refined methods and concepts related to SOE performance excellence, which were influenced by business strategies based on the company's external and internal environment. The novelty of this analysis was to improve the old theory in measuring the business environment and innovation capabilities, as well as business strategies that aligned with SOE performance excellence. Future research could develop a new model regarding business strategy based on the business environment and innovation capabilities that impacted sustainable SOEs' performance excellence.

AUTHOR CONTRIBUTIONS

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