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Article

The determinants of a firm's strategic orientation and its implication on performance: A study on Indonesia state owned enterprises

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MANAGEMENT | RESEARCH ARTICLE

The determinants of a firm's strategic orientation and its implication on performance: A study on Indonesia state owned enterprises

Sofik Handoyo^{1*}, Harry Suharman¹, Erlane K Ghani² and Slamet Soedarsono³

Abstract: The purpose of the study was to examine empirically the influence of firm characteristics, namely size, age, and industry type, on a firm's strategic orientation. Furthermore, the study tested the impact of strategic orientation on firm performance. The sample of the study was state-owned enterprises (SOEs) listed on the Indonesia stock exchange from 2015–2019. Findings indicated that the firm characteristics did not have any causal relationship with strategic orientation. However, strategic orientation positively and significantly influenced firm performance using financial indicators' operating profit margin (OPM) and return on equity (ROE) but not for return on assets (ROA). The study contributes to understanding the organization's behavior regarding strategic orientation choice associated with firm characteristics and its impact on organization performance. Practically, findings in this study have managerial implications associated with the decision to choose the proper strategic orientation. Academically, the study contributes to organizational behavior and strategic management literature from an Asian perspective, especially that of Southeast Asia.

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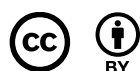
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PUBLIC INTEREST STATEMENT

The study was about understanding the factors affecting an organisation regarding its strategic orientation choice. Factors under the study are firm characteristics, namely firm size, firm age, and industry type. Meanwhile, strategic orientation refers to a particular strategy that firms adopt, whether offensive or defensive. Offensive strategic orientation is market-oriented and relies on innovation and new product development. On the other hand, a defensive strategic orientation emphasises internal business process efficiency. The study found that firm characteristics did not play any role in determining a firm's strategic orientation. However, strategic orientation significantly influenced firm performance (operating profit margin and return on equity). Additionally, firms adopting an offensive strategic orientation tended to perform better than those with defensive ones.



Subjects: Economics; Business, Management and Accounting; Industry & Industrial Studies

Keywords: Strategic orientation; firm characteristics; firm performance; state-owned enterprises

1. Introduction

Indonesia's economic structure is built with significant contributions from State-owned enterprises (SOEs). The share of SOEs among the top ten firms in Indonesia is 69%, higher compared to other ASIAN countries such as Malaysia (68%) and India (59%) (Kim & Ali, 2017; Kowalski et al., 2013). SOEs in Indonesia operate in various sectors, including energy, finance, services, infrastructure, and manufacturing. Therefore, understanding the strategic orientation of these SOEs is crucial to ensure their effectiveness and efficiency in contributing to the country's development goals. The issue of SOEs' performance has been debated and discussed globally. While SOEs are often established to achieve specific social and economic objectives, they have been criticized for their inefficiencies, lack of accountability, and poor performance (PwC, 2015). As such, there is a need to understand the factors that determine the strategic orientation of these SOEs and their impact on performance. The study of the determinants of a firm's strategic orientation is critical to the field of strategic management. Scholars have identified various factors that influence a firm's strategic orientation, such as its industry, resources, culture, and leadership (Acquaah, 2007; Johnson et al., 2012; O'Regan & Ghobadian, 2006). However, there is a lack of research on how these factors apply to SOEs and their strategic orientation. As such, this study can contribute to the existing literature by providing insights into the unique determinants of SOEs' strategic orientation and their implications on performance.

Strategic orientation is associated with a firm's preference to choose a particular strategy to achieve an organization's goals. One of the strategic orientations most discussed in the literature is Miles and Snow's typology strategy (Pleshko et al., 2014). Miles and Snow classified typology strategy into reactor, defender, analyzer, and prospector (Miles & Snow, 1978). Reactor and defender strategies are typical of defensive strategic orientation. Meanwhile, analyzer and prospector strategies are associated with proactive strategic orientation (Bentley et al., 2013). The impact of the adoption of Miles and Snow's typology strategy on a firm's performance has been studied frequently. However, issues related to the determinants affecting strategic orientation adoption are still poorly understood. Questions about why firms adopted different strategic orientations remain unclear. Business and management scholars emphasize the importance of understanding a firm's behavior and activities to achieve organizational goals (Peng et al., 2016). Therefore, studying the determinants of a firm's strategic orientation is relevant to comprehensively understanding this matter.

In recent years, understanding the factors that influence a firm's strategic orientation has become increasingly important for both scholars and practitioners (Porter, 2008). Among the various determinants of strategic orientation, firm characteristics have emerged as crucial components (Hitt et al., 2019; Sirmon & Hitt, 2009). However, despite the growing body of research on the topic, there remains a need for a more comprehensive analysis of which firm characteristics play a pivotal role in shaping the strategic orientation (Fainshmidt et al., 2016). Our study aims to bridge this gap by focusing on specific firm characteristics that have shown significant influence on strategic orientation in recent literature. By focusing on these specific firm characteristics, our study seeks to provide a more in-depth understanding of their influence on strategic orientation. We believe that this analysis will contribute to the existing literature on firm characteristics and strategic orientation and offer valuable insights for practitioners seeking to navigate the complex process of strategic decision-making.

The firm characteristics selected for this study include size, age, and type. These characteristics were chosen based on their prominence in the literature from the last 10 years and their demonstrated impact on the firm strategy (Handoyo et al., 2023). For instance, firm size, age, and type have been widely studied and found to influence a firm's strategic choices and competitive

advantage (Coad et al., 2013; Wennberg et al., 2011). Resources and capabilities have also been established as critical components of strategic management theory, as they serve as the foundation for a firm's competitive advantage and value creation (Hitt et al., 2019; Peteraf & Barney, 2003). Lastly, market orientation is a vital firm characteristic because it captures the degree to which a firm aligns its strategies with market needs and demands, ultimately affecting firm performance (Hakala, 2011; Narver et al., 2004).

Different firms have different strengths and weaknesses that affect the choice of competitive strategy (Aranda, 2002). Firm characteristics (age, size, industry type), capabilities, and constraints are frequently mentioned in the literature associated with a firm's strategy and performance (Ozer & Markóczy, 2010; O'Cass & Julian, 2003). Organization theory posits that firm characteristics can affect typical strategies adopted by firms (Jiang et al., 2011). Previous studies on organizational behavior mainly focused on firm characteristics as a control variable for strategic orientation and firm performance (Coad et al., 2017; Shinkle & Kriauciunas, 2009). There has been little discussion on firm characteristics as the determinants (exogen variable) for strategic orientation. Firm characteristics deserve appropriate consideration in theoretical and empirical studies associated with a firm's strategy and performance (Coad et al., 2017). Firm characteristics are essential attributes that determine a firm's internal ability and behavior when interacting with the external environment to shape the behavior and performance of firms (Shinkle & Kriauciunas, 2009). The lack of extensive studies examining the relationship between those variables (firm characteristics, strategic orientation, firm performance) motivates this study.

This study empirically examined the influence of firm characteristics (size, age, and industry type) on firm behavior concerning strategic orientation (defensive or proactive strategy) in Indonesia. Furthermore, the study also analyzed the implications of strategic orientation adoption (defensive or proactive strategy) on firm performance. The behavior of firms in adopting a particular typology strategy and its implications on performance are revealed based on firm characteristics. Even though empirical studies on Miles and Snow's strategic orientation have been extensively conducted, the results have been mixed and inconclusive (Otache, 2019). Some studies found that strategic orientation influenced firm performance (Grimmer et al., 2017; Helmig et al., 2014), whereas others did not (Anwar et al., 2016; Shoham & Lev, 2015). Theoretically, firms with a proactive strategic orientation should perform better than those with a defensive strategic orientation (Andrews et al., 2009). However, the findings indicate divergency and do not fully follow the theory. Some findings agreed with Miles and Snow's typology strategy (Navissi et al., 2016; Peljhan et al., 2018), while others were not (Andrews et al., 2009; Anwar & Hasnu, 2017a). This implies the existence of a theoretical gap; therefore, further study to understand the relationship between a firm's strategic orientation and firm performance is still needed.

This study differs from prior literature in terms of scope and context, methodological approach, variables and measures, and industry focus. For example, Coad et al. (2017) provide valuable insights into the role of firm age, but it does not specifically investigate the combined influence of firm size, age, and industry type on strategic orientation. DeSarbo et al. (2005) uses a self-assessment questionnaire instrument to measure business strategy. Meanwhile, this study relies on financial archive data, which is a more objective measurement method than self-assessment. Additionally, their research primarily focused on the manufacturing sector. Our research extends the scope by examining a diverse set of industries and comparing the effects of firm characteristics on strategic orientation across various sectors but limited only State Owned enterprises. From a methodological research point of view, the study offers novelty in terms of the design of the study. This study applied a different approach to understanding strategic orientation and firm performance. Unlike previous studies, where firm characteristics were proxied as a control variable, this study proposed firm characteristics as active variables for strategic orientation. Additionally, our study draws on different theoretical perspectives to explain the relationship between these firm characteristics and strategic orientation. Previous studies such as those by Ribeiro et al. (2011), Fernandes et al. (2017), and Lin et al. (2020) use resources-based theory to explain

a firm's strategic orientation. This study combines configurational theory and resources-based theory as foundations to understand the relationship between a firm's characteristics and strategic orientation.

Contributions of the study are addressed to academics, business managers, and policymakers. Academically, our study contributes to the literature on strategic management by exploring the relationship between firm characteristics and strategic orientation. It provides new insights into how different firm characteristics influence the choice of strategic orientation and its impact on firm performance. The findings of our study can be useful in understanding the strategic behavior of state-owned enterprises in Indonesia, but the generalizability of the findings to other contexts and types of firms needs to be further explored. For business managers, our study can provide insights into how managers of state-owned enterprises can align their strategic orientation with the firm's characteristics to improve performance. It also assists managers in allocating resources more effectively by understanding the strategic orientation that best fits their firm's characteristics. Additionally, the findings can help managers to identify potential sources of competitive advantage based on their firm's characteristics. For policymakers, the findings of our study can inform government policy on state-owned enterprise management and performance. Specifically for Indonesia, the study can contribute to the economic development of Indonesia by improving the performance of state-owned enterprises.

2. Literature review and hypothesis development

2.1. Theoretical framework

The study's theoretical foundation was based on configuration theory and resources-based theory. Configuration theory posits that organizational performance is determined by particular patterns and combinations of elements (Y. Park & El Sawy, 2013). Firm characteristics determine which business strategy best complements a firm to yield superior performance (Doty et al., 1993). The business strategy should be matched according to its context, including the organizational characteristics (Slater et al., 2011). Each business organization is unique, which affects its strategic orientation. Firms in the same industry may have different strategic orientations because they have different natures. A configurational approach suggests that organizations are best understood as clusters of interconnected structures and practices (Fiss, 2007). This approach refers to organization classification based on its characteristics, such as industry, size, and age. Unlike contingency theory, which emphasizes external factors, configuration theory features organization characteristics as critical factors determining strategic orientation (E. H. Park & Luo, 2001).

The resource-based theory stresses that factors determining a firm's sustainability and competitiveness come from internal sources (Ke et al., 2008). Assets, capabilities, organizational processes, firm attributes, information, and knowledge are essential resources for the firm's growth (Barney & Clark, 2007). Scholars have argued that the strategy's effectiveness depends on the organization's internal factors, such as resources and capabilities (Storey & Hughes, 2013). Therefore, managers must consider resource availability to ensure that selected strategies can be implemented effectively. There is no set effective strategy in all contexts, but the choice depends on resource position and the environment (DeSarbo et al., 2005; Helmig et al., 2014). When firms face resource constraints, selected strategies may not reflect the best option available. Therefore, a firm should select the strategy by effectively utilizing core resources and capabilities to achieve optimal performance (Cadogan, 2012; Furrer et al., 2008). Strategy is about making choices and is a way to ensure a sustainable competitive advantage by investing the resources needed (Lin et al., 2014).

2.2. Miles and Snow's Strategic Orientation

Miles and Snow outline four different firms based on their strategic orientation: prospector, analyzer, defender, and reactor (Miles & Snow, 1978). A firm with a prospector strategic orientation tends to expand its market share aggressively and actively seek new market opportunities by initiating new products or service innovations (Arieftiara et al., 2019). An analyzer strategic

orientation has similar characteristics to those of the prospector but relatively moderate in terms of the degree of aggressiveness (Rajaratnam & Chonko, 2015). Defender strategic orientation focuses on maintaining stable growth rather than actively challenging competitors. Firms with a defender strategic orientation emphasize operation efficiency, relatively passive market expansion, and product/market development (Navissi et al., 2016). Meanwhile, a reactor strategic orientation focuses on ensuring the firm's survival amid business competition. Firms with both defender and reactor strategic orientations are rarely aggressive in obtaining new opportunities. Instead, they tend to defend current markets and act primarily when pressured to do so by environmental factors (Pleshko et al., 2014).

Some literature labels prospectors and analyzers as proactive strategic orientations. Meanwhile, defender and reactor strategic orientations are identified as defensive strategic orientations (Woolley, 2009). Ittner et al. (1997), Bentley et al. (2013), and Higgins et al. (2015) developed a strategy composite measure as a proxy intended to capture different elements of a firm's strategic orientation as proposed by Miles and Snow. Differences between a defensive and proactive strategic orientation can be identified by changes in the intensity of research and development, promotion, utilization of assets, and sales growth (Bentley et al., 2013; Higgins et al., 2015). Firms with a defensive strategic orientation (reactor and defender) are characterized by tight resource spending regarding research and development, promotion, and investment in property and equipment. In this sense, a defensive strategic orientation (reactor and defender) tends to have a lower score for its composite measure of strategy. On the contrary, an proactive strategic orientation (analyzer and prospector) with relatively massive resource spending for research and development, promotion, and investment in property and equipment will have a higher composite measure of strategy score.

2.3. Firm size and strategic orientation

Firm size has been associated with numerous strategically important business processes (Wickert et al., 2016). It is an essential attribute that shapes behaviors and decisions in an organization, including strategic orientation (Shinkle & Kriauciunas, 2009). Decisions relating to strategy or competitive responses depend on a firm's capacity, operations, and finances (Haddock-Millar et al., 2015). Firm size reflects the scale of economies, market power, financial resources, and knowledge (Chandrapala & Knápková, 2013; Jiang et al., 2011). Most literature supports the proposition that large firms tend to have an advantage in terms of resources, productivity, bargaining power, and survival ability compared to small firms (Jiang et al., 2011; Lai et al., 2016). Large firms are capable of adopting high technology (Abdel-Kader & Luther, 2008), conducting research and development for the product innovation (Dobrev & Carroll, 2003), and expanding to the international market (Dobrev & Carroll, 2003; Shinkle & Kriauciunas, 2009). Firms with more considerable capital and resources enjoyed lower overall business failure (Maté-Sánchez-Val et al., 2018). Meanwhile, smaller firms are more likely to be affected by fluctuations in the business environment (Beck et al., 2005; Felzensztein et al., 2022; Henderson, 1999a).

Firm size indicates resources capability and sources of sustainable competitive advantage (Huang et al., 2015; O'Cass & Weerawardena, 2009). Due to their adequate resource capability, large firms have no constraints in financing innovation costs (Chapman & Hewitt Dundas, 2018; Fu et al., 2014). Handoyo et al. (2023) argue that firm size is associated with resources and has implications on a firm's strategic orientation. Therefore, large firms tend to adopt an innovation strategy with the intention of seeking new market opportunities (Kumar et al., 2012). On the other hand, small firms are characterized by their limited resources (Nakara et al., 2012), are vulnerable to the business environment, and are more prudent in spending resources (Jiang et al., 2011). Small firms are resource-constrained and cannot make the massive investments required to sustain a competitive advantage (Anwar & Hasnu, 2017b). Meanwhile, large firms with their resource advantages are less sensitive to market uncertainty and risk in new market development (Laufs & Schwens, 2014; Trevino & Grosse, 2002). Large firms are generally more active than small

firms and have higher risk tolerances (Chapman & Hewitt Dundas, 2018). The literature has also associated larger firms with the capability of domestic and international expansion (Li et al., 2019).

Hypothesis 1a (H1a): Firm size positively influences a firm's strategic orientation.

Hypothesis 1b (H1b): Large firms tend to adopt a proactive strategic orientation, while a defensive strategic orientation is adopted by small firms.

2.4. Type of industry and strategic orientation

Each type of industry has characteristics that affect how the industry reacts to the external environment (Moss et al., 2013). This implies that different firms will emphasize their strategic positions differently (Bishop & Megicks, 2002; Haleblan et al., 2012). There is a particular industry in which the business environment is stable and not affected by the disruption of advanced technology and knowledge. Meanwhile, there is also a type of industry characterized by intense competition, a volatile business environment, and being fully affected by advanced technology and knowledge. A typical industry, in which its business process and performance rely on and is determined by technology and knowledge, is classified as a knowledge- and technology-intensive industry (NSB, 2018). A firm in the knowledge- and technology-intensive (KTI) industry category is very dynamic in following knowledge and advanced technology. The only way to survive is to adopt the current knowledge and technology and to support business processes. The KTI industry is typical of an industry naturally forced by the business environment to actively seek opportunities and compete. Therefore, an proactive strategic orientation is a proper strategy for this industry.

Firms select and apply particular strategic orientations depending on their characteristics, including industry type (Y. Yang et al., 2012; Åkesson et al., 2007). Ozer and Markóczy (2010) found that industry structure and firm characteristics significantly impact corporate strategy and innovation. Firms develop and implement a particular strategy to respond to external and internal forces (O'Cass & Julian, 2003; Schneider et al., 2017). The KTI industry is a typical industry with a strategic orientation intended to develop and exploit market opportunities (Karagouni, 2018). Its strategic orientation is characterized by a high level of research and development, innovation, and the intention to expand in the market (Olteanu, 2010; Secundo et al., 2017). Knowledge-intensive enterprises rely on organizational capacities, competencies, technologies, and innovative business models (Passiante et al., 2016). They are superior in total factor productivity (TFP) compared with non knowledge and technology-intensive industries (Wang et al., 2020). Rapid technological advancements in this industry force firms to adopt competitive strategies (Secundo et al., 2017).

Hypothesis 2a (H2a).The industry type positively influences a firm's strategic orientation.

Hypothesis 2b (H2b).The knowledge and technology-intensive (KTI) firms tend to adopt a proactive strategic orientation, while a defensive strategic orientation is adopted by non-KTI.

2.5. Firm age and strategic orientation

The firm age reflects the experience and the accumulation of knowledge from the initial establishment of the business to the present (C. Park et al., 2015; Durand & Coeurderoy, 2001). Older firms theoretically have more experience and knowledge than younger firms (Jiang et al., 2011; Voss & Voss, 2013). Therefore, the learning effect will differ between young and old firms (X. Liu et al., 2013). Learning benefits derived from experience influence the design and implementation of firm strategy (Bruneel et al., 2010; Coad, 2016). Due to a lack of experience, younger firms behave more [prudently in selecting strategies. Meanwhile, with their accumulation of knowledge and experience, older firms tend to be more confident with their strategic orientation choice. Fort et al. (2013) found differences between young firms and old firms in responding to dynamic business environments. Older firms have

a more reliable organization; therefore, the failure rate is expected to be low compared to younger firms (Capasso et al., 2015; Henderson, 1999b; Mellahi & Wilkinson, 2004). This results in older firms being more aggressive in responding to the business environment than younger firms.

Business organizations gain experience after a period of operation, making older firms relatively more efficient than younger firms (Assefa & Matambalya, 2002). Along with the accumulation of experience and knowledge, firm age has also been associated with business performance. The impact of firm age on performance depends on the strategy choice (Szymanski et al., 1995; Yamakawa et al., 2011), which implies that the firm age does not directly affect performance but is contingent on its strategy (Henderson, 1999a; Yamakawa et al., 2011). Firm age is a fundamental determinant for business organizations to capture value from strategies (Coad, 2016; Sørensen & Stuart, 2000). X. Liu et al. (2013) found that the capability to penetrate the international market is affected by learning experiences as companies get older. Older firms typically have substantial business and institutional networking that allows access to information that may enable international growth (Ripollés & Blesa, 2015; Shinkle & Kriauciunas, 2009). Coad et al. (2017) argued that a lack of capabilities, experiences, and routines makes younger firms less innovative than older firms.

Hypothesis 3a (H3a). Firm age positively influences a firm's strategic orientation.

Hypothesis 3b (H3b). Older firms tend to adopt a proactive strategic orientation, while a defensive strategic orientation is adopted by younger firms.

2.6. Strategic orientation and firm performance

Business organizations adopt different strategic orientations to achieve a common goal, namely financial performance. Every firm has different resources, experiences, knowledge, and technology that cause strategic orientation to vary. Certain firms have a conservative purpose, which is to maintain business continuity. In this regard, firms tend to adopt a defensive strategic orientation (reactor and defender). On the other hand, firms with a growing vision lean toward a proactive strategic orientation (analyzer and prospector). In general, strategic orientation is intended to maintain a firm's competitiveness in the marketplace and achieve optimum performance (Cadogan et al., 2016; Ferraresi et al., 2012; Otache, 2019). The external environment, business strategy, and organizational structure all interact and influence the organization's performance (F. Yang et al., 2022; Olson et al., 2005; Spangenberg & Theron, 2013). Previous studies indicate that well-conducted strategic orientations enable a firm to earn above-average returns (Banker et al., 2014; Durand & Coeurderoy, 2001; Perez-Valls et al., 2016). Due to their superiority in terms of resources, experience, knowledge, and technology, firms with proactive strategic orientations will have better business performance than those with defensive strategic orientations. Using the business performance indicators of return on assets (ROA), operating profit margin (OPM), and return on equity (ROE), the hypotheses are formulated as follows:

Hypothesis 4a (H4a). A firm's strategic orientation positively influences business performance.

Hypothesis 4b (H4b). Firms with a proactive strategic orientation perform better than those with a defensive strategic orientation.

3. Methodology research

3.1. Population, sample and data

The population in this study is all firms consecutively listed on the Indonesia stock exchange (IDX) from 2015–2019. Since the study was designed to understand a specific type of firm, which is state-owned enterprises (SOEs), a purposive sampling method was adopted. The description of the population, sample, and data is presented in Table 1.

Table 1. Description of population, sample and data

Sample and data	Description	Total Number
Sample of firms	State-owned enterprises (SOEs) consecutively listed on the Indonesia stock exchange (IDX) from 2015–2019	24
Data sets for analysis	Type of data is panel data (twenty four sample of firms and five years of observations)	120

The timing and period of data selection have considered the current data available. When the research was conducted, the latest data possible to obtain was from 2019. In total, 24 listed SOEs were involved in the study. With five years of financial data, a 120-panel data set was obtained for analysis. Data were obtained and processed from SOEs' annual reports from 2015–2019 and supplementary information released by the IDX.

3.2. Strategic orientation measurement

This study's construction of strategic orientation refers to Miles and Snow's typology strategy. To assign firms to different strategic orientation types, a strategy composite measure following the works of Ittner et al. (1997), Bentley et al. (2013), and Higgins et al. (2015). The construct of strategic orientation was proxied with five ratios, namely, 1) research and development to sales, 2) marketing expenditures to sales, 3) employment to sales, 4) market to book ratio, and 5) property and equipment to total assets (capital intensity). Each of the five measures was intended to capture different elements of a firm's strategic orientation.

The proportion of research and development expenditure relative to sales indicates a company's inclination to pursue novel products. As proactive companies undertake a higher degree of innovative endeavors, it is anticipated that they will incur greater research and development expenses in comparison to defender firms (Hambrick, 1983; Higgins et al., 2015). The proportion of marketing expenses to overall sales indicates a company's focus on marketing and sales efforts. Proactive companies devote more resources to inspiring, enlightening, and engaging their customers, which is why they are anticipated to incur greater marketing costs compared to defensive firms (Bentley et al., 2013; Higgins et al., 2015; Ittner et al., 1997). The employee-to-sales ratio approximates a company's capacity to effectively generate and distribute its products and services (Higgins et al., 2015; Thomas et al., 1991). Given that defender firms prioritize organizational efficiency, it is expected that they will exhibit a lower number of employees per dollar of sales compared to proactive companies. The market-to-book value ratio is considered an approximation of a company's growth prospects or investment opportunities. Prospector firms are anticipated to possess higher growth potential in comparison to defender firms (Ittner et al., 1997). Capital intensity, represented by the ratio of net property, plant, and equipment to total assets, is intended to reflect a company's emphasis on production assets. Consequently, higher ratios are typically indicative of defender firms. The scoring for capital intensity is reversed, as defenders are anticipated to exhibit greater capital intensity compared to Proactive companies (Higgins et al., 2015).

We ranked each of the five ratios by forming quintiles to construct the composite measure. The top first quintiles were given a score of 5, and the top second quintiles were given a score of 4, and so on. Those in the lowest quintile were given a score of 1. For each firm year, the scores across the five ratios were summed up with a maximum score of 25 and a minimum score of 5. Higher composite scores represent a proactive strategic orientation, while lower composite scores represent a defensive strategic orientation. To classify strategic orientation into the category of proactive or defensive, we used a parameter in accordance with Bentley et al. (2013). A composite score of strategy ranging from 5 to 10 was identified as a defensive strategic orientation, and a range score from 11 to 25 represents a proactive strategic orientation. For data tabulation and analysis,

Table 2. Scoring system of strategic orientation

Range total composite index score	Strategic orientation	Nominal type of data
$\geq 5 \leq 10$	Defensive Strategy	1
$\geq 11 \leq 25$	Proactive Strategy	2

a defensive strategic orientation was given a categorical value of 1 and a value of 2 for a proactive strategic orientation. The Scoring system to classify strategic orientation into defensive and proactive is presented in Table 2.

3.3. Firm characteristics and firm performance variable measurement

The firm characteristics in this study refer to the firm size, firm age, and industry type. The firm size was proxied with the natural logarithm of total assets. Meanwhile, the firm age was proxied with the duration (years) of being listed on the capital market. The calculation of a firm age was from the initial public offering (IPO) until the study period (2015–2019). The industry type in this study followed the National Science Board (NSB) classification, where the industry is classified based on its knowledge and technology factors. NSB classifies the industry into KTI and non-KTI categories. Industry type was constructed using a dummy variable model, where KTI was given a value of 1 and a value of 0 for non-KTI. Firm performance in this study was measured using financial performance indicators, namely, return on assets (ROA), return on equity (ROE), and operating profit margin (OPM).

Return on Assets (ROA) is a widely-accepted financial indicator for measuring firm performance, as it demonstrates the efficiency with which a firm uses its assets to generate profit. ROA indicates how effectively a firm's management is using its assets to generate profits, making it a useful metric for evaluating management decisions and resource allocation (Diaz & Pandey, 2019; Gavrea et al., 2011). ROA enables comparisons between firms of different sizes and industries, as it takes into account the size of a firm's asset base and its ability to generate earnings (Hawawini et al., 2003). ROA provides a comprehensive view of a firm's profitability and the efficiency with which it uses its assets (Katchova et al., 2013). ROA is a useful measure to evaluate how well the company has used its resources to generate income (Choiriyah et al., 2021)

ROE focuses on shareholder value creation and measures the return generated on the equity invested by shareholders. This emphasis on the owner's perspective is crucial for evaluating the effectiveness of management in utilizing the capital provided by investors. A higher ROE indicates better efficiency in using shareholder equity to generate profits. This can signal a well-managed company and can be a positive sign for potential investors. ROE enables comparisons across firms within and across industries, providing a standardized measure of performance (Kharatyan et al., 2016; Q. Liu et al., 2022). This helps investors and analysts identify better-performing companies. Using ROE as a performance indicator enables to evaluate of the success of management in maximizing the rate of return to shareholders (Choiriyah et al., 2021)

Operating profit margin (OPM) is a financial measure that calculates the amount of profit a company earns from its core business operations as a percentage of its total revenue. It is a widely used financial indicator for measuring a firm's performance because it provides insights into a company's ability to generate profits from its operations. OPM also reflects how much efficiency and effectiveness of the company's operations to earn a profit (Choiriyah et al., 2021). OPM is a good financial indicator for measuring performance because it provides insights into a company's ability to generate profits from its core business operations (Maris & Dorner, 2022). It is a direct measure of profitability that can be compared across different companies and industries, making it a useful benchmarking tool (Bordeianu & Radu, 2020)

3.4. Model analysis

The first model analysis was intended to empirically examine the influence of firm characteristics on a firm's strategic orientation. This study proposed the firm's strategic orientation (defensive or proactive) as a function of firm characteristics: size, age, and industry type. Due to the construct of a firm's strategic orientation being a categorical scale (defensive or proactive), binary logistic regression (BLR) was used in this study. BLR is advantageous in its robustness, and the endogen variable does not require normality, linearity, homoscedasticity, or equal variance in each group. Application of the BLR formula in this study is expressed in the following equation:

$$\text{Log} \left[\frac{P}{1-P} \right] = \beta_0 + \beta_1 \text{Size} + \beta_2 \text{Age} + \beta_3 \text{Type} + \varepsilon$$

Where,

P = probability the firm will choose a proactive strategic orientation

$1-P$ = probability the firm will choose a defensive strategic orientation

β_0 = constant

$\beta_1, \beta_2, \beta_3$ = coefficient regression

Size = natural logarithm of the firm's total assets

Age = firm's listing age on the capital market

Type = dummy variable of type of industry (0 = non-KTI, 1 = KTI)

ε = random error

The second model analysis was designed to examine the causal relationship between strategic orientation (defensive or proactive) and firm performance. In this model, firm performance is a function of a firm's strategic orientation. Financial indicators, namely ROA, ROE, and OPM, were used as proxies for the firm performance (Anwar & Hasnu, 2017a). Since the endogenous variables consisted of three indicators, namely, ROA, ROE, and OPM, multivariate variance analysis (MANOVA) was applied. MANOVA produces an F -statistic to determine whether there are significant differences among the group and to examine the differences between all the dependent variables simultaneously (George & Mallery, 2020)

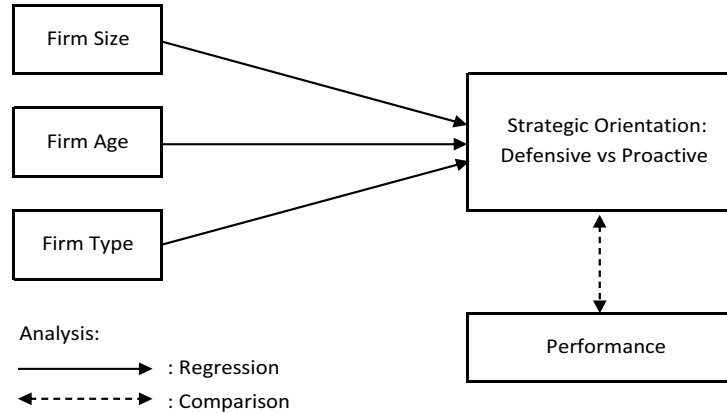
The third model analysis examined whether firms with defensive and proactive strategic orientations differ in size, age, industry type, and performance. Since the data were not normally distributed, a Kruskal-Wallis one-way ANOVA test was used. The non-parametric Kruskal-Wallis one-way ANOVA test deals with the non normality of the data (Nimtrakoon & Tayles, 2015). The Kruskal-Wallis test assesses the differences between the average ranks to determine whether the groups are significantly different or not (Nimtrakoon & Tayles, 2015). Graphically, the research framework proposed in this study is presented in Figure 1.

4. Results and discussion

4.1. Correlation analysis

A correlation analysis procedure was conducted to identify the non causal relationship between the variables involved. Spearman's rho was employed instead of Pearson's correlation since the variables in this study are a combination of categorical and scale. The result of the correlation is

Figure 1. Research framework.



presented in Table 3. The results indicate that a firm's strategic orientation (defensive or proactive strategy) has a strong correlation with the industry type ($r=0.772$, $p<0.01$) and a moderate correlation with the firm size ($r=0.201$, $p<0.05$). However, firm age is not associated with the firm's strategic orientation ($r=0.154$, $p>0.05$), which implies that there is no difference in behavior between young firms and old firms in terms of choice of strategic orientation.

The association between the firm's strategic orientation (defensive or proactive) and business performance showed a moderate correlation between ROE ($r=0.312$, $p<0.05$) and OPM ($r=0.262$, $p<0.05$). The firm's strategic orientation was associated with business performance indicators, namely ROE and OPM, but not ROA. This implies that the sample in this study cannot utilize their resources (assets) efficiently and effectively. Idle assets or unproductive assets are common problems generally found in industries, especially among large firms. It was validated in this study that firm size has a negative correlation with ROA ($r=-0.202$, $p<0.05$).

4.2. Binary logistic regression analysis

In the first model, the study proposed that the firm's behavior with respect to adopting a particular strategic orientation (defensive or proactive) is influenced by the firm characteristics (age, size, and industry type). To verify the model proposed, an omnibus test was required. The omnibus test was intended to check whether the model proposed (with exogen variables included) was better than the baseline model (without exogen variables included). Information in Table 4 indicates that the omnibus test Chi-square (χ^2) is 96.793, and its p -value <0.01 . This implies that the model estimation (with exogen variables) improved significantly compared to the baseline model. A Hosmer and Lemeshow test was conducted to determine whether the model adequately describes the data. The model is considered reliable if the Hosmer and Lemeshow test has a p -value of >0.05 and the test result fulfilled the required parameter.

Table 3. Spearman's Rho correlation matrix

		1	2	3	4	5	6	7
1	Firm Strategy	1						
2	Firm Age	0.154	1					
3	Firm Size	0.201*	0.279**	1				
4	Industry Type	0.772**	0.399**	0.390**	1			
5	ROA	0.004	-0.068	-0.202*	-0.143	1		
6	ROE	0.312**	0.043	0.289**	0.299**	0.725**	1	
7	OPM	0.262**	0.071	0.465**	0.323**	0.454**	0.727**	1

Note: * $p<0.05$; ** $p<0.001$

The model summary logistic regression presents additional information on the proposed model's reliability. The value of -2 Log-likelihood is 65.506; smaller values are best, and a value under 100 is considered good. In addition, Nagelkerke R Square indicates the percentage of exogen variables in explaining the variability of the endogen variables. The result suggests that 74.7% of the variability of strategic orientation (defensive or proactive) can be explained by firm characteristics (size, age, and industry type). The remaining (25.3%) is determined by the other factors not included in the model estimation.

The total sample 120-panel data set comprises 71 with a defensive strategic orientation and 49 with a proactive strategic orientation (Table 5). The classification table compares the predicted values for the endogen variable, based on the regression model, with the actual observed values in the data (George & Mallery, 2020). Before exogen variables were included, model estimation could predict a firm's strategic orientation (defensive or proactive) by as much as 59.2%. After the proposed exogen variables were included, the predicted percentage improved to 88.3% (increased by 29.1%). This supports the results of a goodness-of-fit test previously conducted (omnibus test and the Hosmer and Lemeshow test).

Even though a firm's characteristics (age, size and industry type) in the aggregate are reliable in the model estimation to predict the firm's probability of choosing their strategic orientation, binary logistic regression statistic was not significant for each variable (Table 6). The study proposed the hypothesis that firm age (H1a), firm size (H2a), and industry type (H3a) influence a firm's strategic orientation. However, regression results (Table 6) showed that the p -value for all exogenous variables in the model was above 0.05. Therefore, the hypotheses proposed (H1a, H2a, H3a) were not supported, which suggests that firm characteristics have strong predictive power to explain firms' strategic orientation in one aggregate model estimation but not for individual variables.

4.3. Multivariate analysis of variance

The second model analysis in this study is a MANOVA intended to examine the effect of strategic orientation (defensive and proactive) on firm performance (ROA, ROE, OPM). The results of the MANOVA are shown in Table 7. The study proposed that strategic orientation (defensive or

Table 4. Model summary logistic regression

Statistic Test	Results	df	Sig.	Parameter
The Omnibus Test Chi Square (χ^2)	96.793	3	0.000	p-value <0.05
Hosmer and Lemeshow Chi Square (χ^2)	1.763	8	0.987	p-value >0.05
-2 Log-likelihood	65.506			
Nagelkerke R Square	0.747			
N	120			

Table 5. Classification table

Strategic Orientation (Endogen Variable)	N	Predicted	
		Percentage Correct (Exogen variable not included)	Percentage Correct (Exogen variable included)
Defensive Strategy	71	100%	100%
Proactive Strategy	49	0%	71.4%
Overall Percentage Correct		59.2%	88.3%

Table 6. Binary logistics regression outcome						
Independent Variables	Coefficients	Standard Error	Wald Statistics	Odd Ratio	Sig	Conclusion
Firm Age	-0.121	0.067	3.330	0.886	0.068	H1a not supported
Firm Size	-0.442	0.308	2.057	0.643	0.151	H2a not supported
Industry Type	-24.970	6418.907	0.000	0.000	0.997	H3a not supported

Table 7. MANOVA of Firms' strategic orientation on performance

Endogenous Variable	Exogenous Variable	F	Partial Eta Squared (PES)	Sig.	Conclusion
Strategic Orientation	ROA	0.421	0.004	0.518	H4a not supported
	ROE	6.727	0.054	0.011*	H4a supported
	OPM	16.302	0.121	0.000**	H4a supported

Note: * $p < 0.05$, ** $p < 0.001$

proactive) influences firm performance (ROA, ROE, OPM). The MANOVA results indicate that the hypotheses were supported except for the ROA performance indicator ($p > 0.05$). The most convincing effect of strategic orientation on firm performance was found on OPM ($p < 0.01$). The results imply that adopting a defensive or proactive strategic orientation will influence firm performance, namely OPM and ROE but not ROA.

Partial eta squared (PES) estimates the effect size of the individual exogenous variable on the endogenous variable. The results indicate that strategic orientation influenced firms' performance indicators of ROA and ROE by as much as 12.1% and 5.4%, respectively. Even though strategic orientation statistically significantly influenced firm performance (ROE and OPM), the effect size was relatively small. Cohen suggested that a PES value = 0.2 be considered a small effect size, a PES value = 0.5 a medium effect size, and a PES value = 0.8 a large effect size.

4.4. Kruskal-Wallis ANOVA analysis

The third model analysis was intended to examine whether the firms that adopted a defensive or proactive strategy had differences in firm characteristics and performance. The results of the Kruskal-Wallis ANOVA test on firm characteristics are presented in Table 8. The results highlight that the firms that adopted a defensive strategic orientation or a proactive strategic orientation had significant differences in firm size (Sig. = 0.028, $p < 0.01$) and industry type (Sig. = 0.000, $p < 0.01$) but not for firm age (Sig. = 0.094, $p > 0.05$). This implies that the firm's behavior regarding its strategic orientation choice can be identified from the firm size and industry type. However, there was no indication of differences in behavior between older and younger firms regarding strategic orientation choice.

The statistical result of the firm size indicates that smaller-scale firms adopted a defensive strategy (mean rank = 54.81), and a proactive strategy was adopted by larger-scale firms (mean rank = 68.74). This supports hypothesis H1b, where the larger-scale firms were predicted to adopt a proactive strategy, and smaller-scale firms were predicted to adopt a defensive strategy. However, there was no significant difference in firm age among defensive and proactive strategy adopters ($p > 0.05$). Therefore, H2b, which predicted that younger firms would adopt a defensive strategy and older firms a proactive one, was not supported. Industry type was proxied with dummy variables, non-KTI firms (given a value of 1) and KTI firms (given a value of 2). The higher mean rank of the Kruskal-Wallis refers to KTI, and the lower mean rank indicates non-KTI. The results show that KTI firms adopted a proactive strategy (mean rank = 85.86), whereas non-KTI firms tended to adopt a defensive strategy (mean rank = 43.00); therefore, hypothesis H3b was supported.

The results of the Kruskal-Wallis ANOVA test on firm performance are presented in Table 9. The results indicate the firms that adopted defensive and proactive strategic orientations and the differences in ROE (Sig. = 0.001, $p < 0.01$) and OPM (Sig. = 0.004, $p < 0.01$). However, they did not indicate performance differences if measured using ROA (Sig. = 0.9620, $p > 0.05$). Hypothesis (H4b) proposed that the firms with a proactive strategic orientation would perform better than those with a defensive strategic orientation. Using ROA, ROE, and OPM as a proxy for measuring

Table 8. Kruskal-Wallis test on firm characteristics									
	Descriptive Statistics				Kruskal-Wallis Test			Conclusion	
	Mean	Std Dev.	Min.	Max.	Mean Rank	Kruskal-Wallis	Sig.		
Firm Size	31.33	1.750	28	35		4.814	0.028*	H1b supported	
Defensive Strategy					54.81				
Proactive Strategy					68.74				
Firm Age	11.91	6.904	1	28		2.807	0.094	H2b not supported	
Defensive Strategy					56.08				
Proactive Strategy					66.90				
Industry Type	0.29	0.456	0	1			0.000**	H3b Supported	
Defensive Strategy					43.00				
Proactive Strategy					85.86				

Note: *p< 0.05, **p< 0.001

performance, the hypotheses were supported except for the ROA indicator. The firms with a proactive strategic orientation had a significantly better ROE (mean rank = 73.49) than those with a defensive strategic orientation (mean rank = 51.54). Using the parameter OPM, firms with a proactive strategic orientation also showed better performance (mean rank = 71.44) than those with a defensive strategic orientation (mean rank = 52.95).

5. Discussion

5.1. Influence of firm characteristics on strategic orientation

The findings in this study suggest that firm characteristics (size, age, and industry type) did not significantly influence firms' strategic orientation. These findings leave a theoretical gap that needs to be explained further in the future. Although the findings are not in line with the theoretical basis used, somehow, the findings are consistent with some of the previous research. Previous studies by Guilding (1999) and Ke et al. (2008) found that firm characteristics did not play any role in determining a firm's strategic orientation and performance. Even though some previous research supports the findings, most earlier studies are not in agreement. Anwar and Hasnu (2017a), Aranda (2002), Godos-Díez et al. (2020), and McEvoy and Buller (2013) found that firm characteristics contribute to firms' behavior regarding strategic orientation adoption. Considering that previous studies were conducted in different countries, country-specific factors may influence the results leading to divergence. Djajadikerta and Trireksani (2012) have argued that each nation is unique in terms of social, political, and cultural practices, which suggests that business practices may not be uniform.

Whether strategic orientation choice is influenced dominantly by organization factors (firm characteristics) or external environmental factors is still an ongoing debate. The findings in this study confirm that organizational factors are in a weak position to influence a firm's strategic orientation. However, this does not mean that organizational factors did not play any role in determining organizational behavior. We believe that organizational factors still have a notable influence, but their effect may not be as strong as external environmental factors. If we look at the regression analysis results, they show that the firm size and firm age are slightly below the parameter to be categorized as statistically significant ($p < 0.05$) in influencing a firm's strategic orientation. This implies that firm characteristics have a role in determining a firm's strategic orientation, but their influence magnitude is weak. Aranda (2002) argued that a typical firm's operation strategy is closely associated with firm characteristics in normal business conditions. However, when the business environment is uncertain, firms will consider the external environment the dominant factor determining the firm's strategic orientation (Anwar & Hasnu, 2017a, 2017b).

Some studies have suggested that firm characteristics act as contingent factors of strategic orientation and firm performance (Murthi et al., 2013). Using the contingency theory point of view, an organization should have a functional fit among the elements of its environment, its strategy, and its structure (Luoma, 2015). Hence, firm characteristics (structure) are not the only factors actively affecting a firm's decision regarding strategic orientation. Escandón Barbosa et al. (2013) found that geographical location and external environment govern the relationship between firm growth and firm size. Strategic orientation interacts with external environmental forces to attain the expected firm performance (Anwar & Hasnu, 2017b; Dominguez et al., 2015), which implies that the strategic orientation chosen by firms may be conditional on the business environment (Panda, 2015). Firms with sufficient resources and experience in the industry may choose a defensive strategy over a proactive strategy when the external business environment is uncertain.

5.2. Firm characteristics and typology strategy

The study did not find any significant influence of firm characteristics on a firm's strategic orientation. However, it seems that firm characteristics are good at predicting firms' behavior, especially related to the typology strategy chosen by firms. The findings indicated that larger firms

Table 9. Kruskal-Wallis test on firm performance

	Descriptive Statistics					Kruskal-Wallis Test			Conclusion
	Mean	Std Dev.	Min.	Max.		Mean Rank	Kruskal-Wallis	Sig.	
ROA	345.23	488.942	-1804	2068			0.002	0.962	H4b not supported
Defensive Strategy						60.37			
Proactive Strategy						60.68			
ROE	860.02	1126.529	-7241	3295			11.549	0.001*	H4b supported
Defensive Strategy						51.54			
Proactive Strategy						73.49			
OPM	1527.58	1227.478	-3159	4000			8.190	0.004*	H4b supported
Defensive Strategy						52.95			
Proactive Strategy						71.44			

*p-value < 0.05

and those in the KTI category are more likely to adopt a proactive strategy. On the contrary, smaller-scale and non-KTI firms tend to adopt a defensive strategy. Meanwhile, firm age did not play any role in determining a firm's typology strategy. There were no significant differences in typology strategy choice between younger firms and older firms. The findings are consistent with those of previous studies conducted by Anwar and Hasnu (2017b) (Aranda, 2002), Bishop and Megicks (2002), Godos-Díez et al. (2020), Panda (2015)

Jamil Anwar and S.A.F Hasnu (Anwar & Hasnu, 2017b) asserted that resource capacity makes a difference between large and small firms' strategic orientation choices. Diversification strategies among firms are closely associated with the firm's scale (Bishop & Megicks, 2002; Godos-Díez et al., 2020). A proactive strategic orientation consumes a significant number of resources. Large firms are associated with sufficient resources and are better able to bear risk; therefore, adopting a proactive strategic orientation is possible (Banerjee & Duflo, 2000; Ke et al., 2008). Meanwhile, small firms with limited resources tend to adopt a strategy with low resource spending (Bishop & Megicks, 2002), a defensive strategy. A proactive strategic orientation is characterized by intense competition and a high risk of failure. Due to limited resources, small firms are relatively prudent in terms of spending resources. Therefore, a strategic orientation with low risks (defensive strategy) makes sense for small firms.

Bishop and Megicks (2002) argued that different types of firms emphasize their different strategic positions because each industry has a distinctive business process and business environment. Therefore, each industry will give a different response to its business environment (Moss et al., 2013). The KTI industry is a typical industry that dynamically follows the advancement of knowledge and technology. An emphasis on innovation in business processes and products/services offered is typical in the KTI industry. Firms in this category will naturally actively seek out opportunities in the market with their knowledge and technology; fast-growing firms adopt flexible strategies (proactive), while slow-growing firms follow conservative strategies (defensive) (Panda, 2015).

5.3. The implication of strategic orientation on performance

The study found that strategic orientation influenced firm performance indicators, namely ROE and OPM but not ROA. These findings are consistent with previous research conducted by Anwar and Hasnu (2017b), MacKinnon et al. (2012), Raymond and St-Pierre (2005), Slater et al. (2007), Stone-Romero and Rosopa (2010). Findings also confirm that firms with a proactive strategic orientation have better business performance (ROE and OPM) than those with defensive strategic orientations. However, using the performance indicator of ROA, a defensive or proactive strategy did not result in any performance differences between firms. These findings are in line with previous studies conducted by Blackmore and Nesbitt (2013), Grimmer et al. (2017), Madanoglu et al. (2014), Peljhan et al. (2018), Saraç et al. (2014), and Zamani et al. (2013).

Even though the study's findings supported the hypotheses, some of the findings were inconsistent with previous studies. For example, Anwar and Hasnu (2017a), Blackmore and Nesbitt (2013), and Parnell et al. (2012) found that a defensive strategy tended to result in better performance than a proactive strategy. Meanwhile, Shoham and Lev (2015) did not find any performance differences between Miles and Snow's typology strategy (defensive and proactive). Strategic orientation is not necessarily related to superior performance, but superior performance is a product of an appropriate match between the contingent factors (Cadez & Guilding, 2008). Anwar et al. (2016) argued that the differences in performance among strategic orientations are because of the influence of external environments. Interactions between strategic orientation and environmental forces affect firm performance (Dominguez et al., 2015), which implies that the best strategy option is not necessarily associated with optimum performance, but it depends on the external environment, such as the business conditions (Jusoh & Parnell, 2008; Ke et al., 2008; Qi et al., 2011)

In general, an proactive strategic orientation outperforms a defensive one. However, in a particular type of industry, a defensive strategic orientation is superior to a proactive one when it comes to firm performance (Anwar & Hasnu, 2017a). Strategic orientation, in some cases, is also associated with the external environment, such as the business uncertainty (Aghajari & Senin, 2014). This implies that firms can change their strategic orientation from proactive to defensive to adjust to the external environment. On the other hand, firms with a defensive strategic orientation also have the capacity and potential to incrementally improve their strategic orientation to follow environmental conditions sufficiently (Conant et al., 1990). Panda (2015) suggested that small firms with a defensive strategic orientation should move from a traditional product-focused strategy to a flexible market-focused one to improve growth. Empirical evidence in this study overall supports the idea that a proactive strategic orientation positively impacts a firm's performance; however, to obtain the expected benefits of a proactive strategic orientation, the adopter should consider external business environment conditions.

6. Conclusion, implications, and limitations

The findings of this study may bring another direction to understanding the relational nature of firm characteristics (age, size, industry type) and strategic orientation. Mainstream studies assume that there is a causal relationship between firm characteristics and strategic orientation. However, the results of the study did not find any significant causal relationship between those variables. Interestingly, correlation analysis showed a significant correlation between firm characteristics and strategic orientation, which implies that the relationship between firm characteristics and strategic orientation is associative rather than causal. Firm characteristics alone may not have any direct causal relationship with strategic orientation. External environments, such as business uncertainty, may influence firm characteristics and strategic orientation.

Even though the study did not find a significant causal relationship between firm characteristics and strategic orientation, firm characteristics were good predictors for understanding strategic orientation typology. An organization's behavior regarding its strategic orientation choice can be explained through its firm characteristics. Firm size and industry type played a role in determining strategic orientation typology choice (defensive or proactive). Larger firms tended to adopt a proactive strategic orientation, and smaller firms tended to adopt a defensive strategic orientation. Additionally, proactive strategic orientation was closely associated with the typical firms in the KTI industry. Meanwhile, a defensive strategic orientation typology was adopted by non-KTI. The implications of adopting a strategic orientation typology on firm performance were also revealed in this study. Proactive strategic orientation outperformed defensive strategic orientation in terms of implications for firm performance.

The findings in this study shed light on how a business organization behaves with respect to strategic orientation choices associated with its firm characteristics. These findings add to a growing body of literature on strategic management and organizational behavior. The managerial implication of this study lies in how a manager should choose the proper strategic orientation typology strategy to obtain better firm performance. Empirical evidence in this study may give managers insight regarding a strategic orientation decision based on an academic perspective. Since the study was conducted on Indonesia SOEs, findings in this study were also expected to provide valuable information for policymakers in Indonesia, especially for the Indonesia Ministry of SOEs. However, considering this study only focuses on SOEs, findings in this study can not be completely generalized to other types of firms (private sector companies). SOEs are typical of a firm heavily influenced by government intervention and policies. In general, they operate not only for profit orientation but also for social orientation. Therefore, SOEs and private companies may have different behaviors regarding their strategic orientation.

Although the findings primarily supported the hypotheses proposed, our work has some limitations. First, the sample involved in this study was limited to SOEs only; therefore, the findings in this study cannot represent other categories of firms (non-SOEs). Thus, it is suggested that future

studies include both SOEs and non-SOEs (private sector companies) and that an ownership structure variable be added to the model analysis. Second, this study focused on the internal organization environment (size, age, and industry type) but neglected the external environment, such as business uncertainty and business risks. It is believed that the external environment has a role in influencing firms' strategic orientation. Therefore, adding an external environment variable, such as business uncertainty and business risks, will provide a more comprehensive understanding of the behavior of business organizations concerning strategic orientation choices. Third, firm characteristics and other internal factors affect a firm's strategic orientation. Profitability, liquidity, growth, and asset structure may also play a marginal role in determining strategic orientation. Therefore, future research is suggested to include it in the model analysis to obtain a comprehensive understanding of the determinants of strategic orientation.

Fourth, mature and start-up firms may behave differently regarding their strategic orientation. Nowadays, many promising start-up firms receive significant financing from venture capital institutions. Therefore, small start-up firms backed by venture capital could be more aggressive than small mature firms in terms of their strategic orientation. A study in the US silicon valley indicates that venture capital affects the professionalization of start-up firms such as human resources, marketing, and stock option plans (Hellmann & Puri, 2002). Investment by venture capital in start-up firms is not limited to financial support but is also involved in organizational transformation. Furthermore, a start-up firm is not necessarily associated with a lack of external knowledge compared to older firms. According to the theory of knowledge spillover entrepreneurship, external knowledge will be more likely grasped by start-ups than established firms since start-ups serve as a conduit of ideas and knowledge (Audretsch & Keilbach, 2007). A study on small firms in Spain found that high-tech start-up firms have better external knowledge than older firms, which leads to better innovation performance (Gimenez-Fernandez et al., 2020). Referring to studies by Hellmann and Puri (2002) and Gimenez-Fernandez et al. (2020) it implies that the behavior of the firm is affected by the support of financial institutions (venture capital) and the type of industry. Therefore, the premise that mentions experiences firms (mature firms) positively associated with proactive strategic orientation need to be validated for consistency. A specific study comparing strategic orientation between start-up firms backed by venture capital and firms without support from venture capital is suggested. Furthermore, to understand more comprehensively the role of firm age on firm strategic orientation, future research is recommended to include the industry sector in variable analysis.

Fifth, the study uses a data panel for analysis but not considering the year-fixed effect. Not including year-fixed effects in a panel data analysis can lead to biased and inefficient estimates, compromised hypothesis testing, and potentially misleading conclusions. Including year-fixed effects can help to mitigate these issues and improve the accuracy of the analysis. Sixth, other factors, such as industry-specific characteristics, market conditions, or macroeconomic factors, could affect both the firm strategic orientation and performance. By not controlling for these factors, analysis in this study may attribute their effects to the firm characteristics under study, leading to inaccurate inferences. Therefore, future research should consider including control variables in model analysis.

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References

Abdel-Kader, M., & Luther, R. (2008). The impact of firm characteristics on management accounting practices: A UK-based empirical analysis. *The British*

- Accounting Review*, 40(1), 2–27. <https://doi.org/10.1016/j.bar.2007.11.003>
- Acquaah, M. (2007). Managerial social capital, strategic orientation, and organizational performance in an emerging economy. *Strategic Management Journal*, 28(12), 1235–1255. <https://doi.org/10.1002/smj.632>
- Aghajari, N., & Senin, A. A. (2014). Strategic orientation and dual innovative operation strategies. *Asia-Pacific Journal of Business Administration*, 6(2), 127–147. <https://doi.org/10.1108/apjba-07-2013-0075>
- Åkesson, J., Jonsson, P., & Edanius-Hällås, R. (2007). An assessment of sourcing strategies in the Swedish apparel industry. *International Journal of Physical Distribution & Logistics Management*, 37(9), 740–762. <https://doi.org/10.1108/09600030710840840>
- Andrews, R., Boyne, G. A., Law, J., & Walker, R. M. (2009). Strategy formulation, strategy content and performance. *Public Management Review*, 11(1), 1–22. <https://doi.org/10.1080/14719030802489989>
- Anwar, J., & Hasnu, S. A. F. (2017a). Strategic patterns and firm performance: Comparing consistent, flexible and reactor strategies. *Journal of Organizational Change Management*, 30(7), 1015–1029. <https://doi.org/10.1108/jocm-03-2016-0053>
- Anwar, J., & Hasnu, S. A. F. (2017b). Strategy-performance relationships: A comparative analysis of pure, hybrid, and reactor strategies. *Journal of Advances in Management Research*, 14(4), 446–465. <https://doi.org/10.1108/jamr-07-2016-0056>
- Anwar, J., Shah, S., & Hasnu, S. A. F. (2016). Business strategy and organizational performance. *Pakistan Economic and Social Review*, 54(1), 97–122. <https://www.jstor.org/stable/26616701>
- Aranda, A. D. (2002). Relationship between operations strategy and size in engineering consulting firms. *International Journal of Service Industry Management*, 13(3), 263–285. <https://doi.org/10.1108/09564230210431974>
- Ariefiara, D., Utama, S., Wardhani, R., & Rahayu, N. (2019). Contingent fit between business strategies and environmental uncertainty. *Meditari Accountancy Research*, 28(1), 139–167. <https://doi.org/10.1108/medar-05-2018-0338>
- Assefa, A., & Matambalya, F. A. S. T. (2002). Technical efficiency of small-and medium-scale enterprises: evidence from a survey of enterprises in tanzania. *Eastern Africa Social Science Research Review*, 18(2), 1–29. <https://doi.org/10.1353/eas.2002.0007>
- Audretsch, D. B., & Keilbach, M. (2007). The theory of knowledge spillover entrepreneurship*. *Journal of Management Studies*, 44(7), 1242–1254. <https://doi.org/10.1111/j.1467-6486.2007.00722.x>
- Banerjee, A. V., & Duflo, E. (2000). Reputation effects and the limits of contracting: A study of the Indian software industry. *Quarterly Journal of Economics*, 115(3), 989–1017. <https://doi.org/10.1162/003353500554962>
- Banker, D., Mashruwala, R., & Tripathy, A. (2014). Does a differentiation strategy lead to more sustainable financial performance than a cost leadership strategy? *Management Decision*, 52(5), 872–896. <https://doi.org/10.1108/MD-05-2013-0282>
- Barney, J. B., & Clark, D. N. (2007). *Resource-based theory: Creating and sustaining competitive advantage*. Oxford University Press.
- Beck, T., Demirgüç-Kunt, A., & Maksimovic, V. (2005). Financial and legal constraints to growth: Does firm size matter? *The Journal of Finance*, 60(1), 137–177. <https://doi.org/10.1111/j.1540-6261.2005.00727.x>
- Bentley, K. A., Omer, T. C., & Sharp, N. Y. (2013). Business strategy, financial reporting irregularities, and audit effort. *Contemporary Accounting Research*, 30(2), 780–817. <https://doi.org/10.1111/j.1911-3846.2012.01174.x>
- Bishop, P., & Megicks, P. (2002). Competitive strategy and firm size in the estate agency industry. *Journal of Small Business and Enterprise Development*, 9(2), 150–161. <https://doi.org/10.1108/14626000210427393>
- Blackmore, K., & Nesbitt, K. (2013). Verifying the miles and snow strategy types in Australian small- and medium-size enterprises [Article]. *Australian Journal of Management*, 38(1), 171–190. <https://doi.org/10.1177/0312896212444692>
- Bordeianu, G.-D., & Radu, F. (2020). Basic types of financial ratios used to measure a company's performance. *Economy Transdisciplinarity Cognition*, 23(2), 53–58.
- Bruneel, J., D'Este, P., & Salter, A. (2010). Investigating the factors that diminish the barriers to university-industry collaboration. *Research Policy*, 39(7), 858–868. <https://doi.org/10.1016/j.respol.2010.03.006>
- Cadez, S., & Guilding, C. (2008). An exploratory investigation of an integrated contingency model of strategic management accounting. *Accounting, Organizations & Society*, 33(7–8), 836–863. <https://doi.org/10.1016/j.aos.2008.01.003>
- Cadogan, J. W. (2012). International marketing, strategic orientations and business success. *International Marketing Review*, 29(4), 340–348. <https://doi.org/10.1108/02651331211242656>
- Cadogan, J. W., Boso, N., Story, V. M., & Adeola, O. (2016). Export strategic orientation-performance relationship: Examination of its enabling and disabling boundary conditions. *Journal of Business Research*, 69(11), 5046–5052. <https://doi.org/10.1016/j.jbusres.2016.04.078>
- Capasso, A., Gallucci, C., & Rossi, M. (2015). Standing the test of time. Does firm performance improve with age? An analysis of the wine industry. *Business History*, 57(7), 1037–1053. <https://doi.org/10.1080/00076791.2014.993614>
- Chandrapala, P., & Knápková, A. (2013). Firm-specific factors and financial performance of firms in the czech republic. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 61(7), 2183–2190. <https://doi.org/10.11118/actaun201361072183>
- Chapman, G., & Hewitt Dundas, N. (2018). The effect of public support on senior manager attitudes to innovation. *Technovation*, 69, 28–39. <https://doi.org/10.1016/j.technovation.2017.10.004>
- Choiriyah, C., Fatimah, F., Agustina, S., & Ulfa, U. (2021). The effect of return on assets, return on equity, net profit margin, earning per share, and operating profit margin on stock prices of banking companies in Indonesia stock exchange. *International Journal of Finance Research*, 1(2), 103–123. <https://doi.org/10.47747/ijfr.v1i2.280>
- Coad, A. (2016). Firm age: A survey. *Journal of Evolutionary Economics*, 28(1), 13–43. <https://doi.org/10.1007/s00191-016-0486-0>
- Coad, A., Holm, J. R., Krafft, J., & Quatraro, F. (2017). Firm age and performance. *Journal of Evolutionary Economics*, 28(1), 1–11. <https://doi.org/10.1007/s00191-017-0532-6>
- Coad, A., Segarra, A., & Teruel, M. (2013). Like milk or wine: Does firm performance improve with age? *Structural Change and Economic Dynamics*, 24, 173–189. <https://doi.org/10.1016/j.strueco.2012.07.002>
- Conant, J. S., Mokwa, M. P., & Varadarajan, P. R. (1990). Strategic types, distinctive marketing competencies

- and organizational performance: A multiple measures-based study. *Strategic Management Journal*, 11(5), 365–383. <https://doi.org/10.1002/smj.4250110504>
- DeSarbo, W. S., Anthony Di Benedetto, C., Song, M., & Sinha, I. (2005). Revisiting the miles and snow strategic framework: Uncovering interrelationships between strategic types, capabilities, environmental uncertainty, and firm performance. *Strategic Management Journal*, 26(1), 47–74. <https://doi.org/10.1002/smj.431>
- Diaz, J. F., & Pandey, R. (2019). Factors affecting return on assets of US technology and financial corporations. *Jurnal Manajemen dan Kewirausahaan*, 21(2), 134–144. <https://doi.org/10.9744/jmk.21.2.134-144>
- Djajadikerta, H. G., & Trireksani, T. (2012). Corporate social and environmental disclosure by Indonesian listed companies on their corporate web sites. *Journal of Applied Accounting Research*, 13(1), 21–36. <https://doi.org/10.1108/09675421211231899>
- Dobrev, S. D., & Carroll, G. R. (2003). Size (and competition) among organizations: Modeling scale-based selection among automobile producers in four major countries, 1885–1981. *Strategic Management Journal*, 24(6), 541–558. <https://doi.org/10.1002/smj.317>
- Dominguez, M., Galán-González, J. L., & Barroso, C. (2015). Patterns of strategic change. *Journal of Organizational Change Management*, 28(3), 411–431. <https://doi.org/10.1108/jocm-05-2014-0097>
- Doty, D. H., Glick, W. H., & Huber, G. P. (1993). Fit, equifinality, and organizational effectiveness: A test of two configurational theories. *Academy of Management Journal*, 36(6), 1196–1250. <https://doi.org/10.5465/256810>
- Durand, R., & Coeurderoy, R. (2001). Age, order of entry, strategic orientation, and organizational performance. *Journal of Business Venturing*, 16(5), 471–494. [https://doi.org/10.1016/S0883-9026\(99\)00061-0](https://doi.org/10.1016/S0883-9026(99)00061-0)
- Escandón Barbosa, D. M., González-Campo, C. H., & Murillo Vargas, G. (2013). Factors determining the appearance of born global companies: Analysis of early internationalisation for SMES in Colombia. *Pensamiento & Gestión*, 206–223. http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S1657-62762013000200009&nrm=iso
- Fainshmidt, S., Pezeshkan, A., Lance Frazier, M., Nair, A., & Markowski, E. (2016). Dynamic capabilities and organizational performance: A Meta-Analytic evaluation and extension. *Journal of Management Studies*, 53(8), 1348–1380. <https://doi.org/10.1111/joms.12213>
- Felzensztein, C., Saridakis, G., Idris, B., & Elizondo, G. P. (2022). Do economic freedom, business experience, and firm size affect internationalization speed? Evidence from small firms in Chile, Colombia, and Peru. *Journal of International Entrepreneurship*, 20(1), 115–156. <https://doi.org/10.1007/s10843-021-00303-w>
- Fernandes, A. A. R., Solimun, & (2017). Moderating effects orientation and innovation strategy on the effect of uncertainty on the performance of business environment [Article]. *International Journal of Law and Management*, 59(6), 1211–1219. <https://doi.org/10.1108/IJLMA-10-2016-0088>
- Ferraresi, A. A., Quandt, C. O., dos Santos, S. A., & Frega, J. R. (2012). Knowledge management and strategic orientation: Leveraging innovativeness and performance. *Journal of Knowledge Management*, 16(5), 688–701. <https://doi.org/10.1108/13673271211262754>
- Fiss, P. C. (2007). A set-theoretic approach to organizational configurations. *Academy of Management Review*, 32(4), 1180–1198. <https://doi.org/10.5465/amr.2007.26586092>
- Fort, T. C., Haltiwanger, J., Jarmin, R. S., & Miranda, J. (2013). How firms respond to business cycles: The role of firm age and firm size. *IMF Economic Review*, 61(3), 520–559. <https://doi.org/10.1057/imfer.2013.15>
- Fu, X., Li, J., Xiong, H., & Chesbrough, H. (2014). Open innovation as a response to constraints and risks: Evidence from China. *Asian Economic Papers*, 13(3), 30–58. https://doi.org/10.1162/ASEP_a_00289
- Furrer, O., Sudharshan, D., Thomas, H., & Tereza Alexandre, M. (2008). Resource configurations, generic strategies, and firm performance. *Journal of Strategy and Management*, 1(1), 15–40. <https://doi.org/10.1108/17554250810909400>
- Gavrea, C., Ilies, L., & Stegorean, R. (2011). Determinants of organizational performance: The case of Romania. *Management & Marketing*, 6(2), 285–300.
- George, D., & Mallery, P. (2020). *IBM SPSS Statistics 26 Step by Step: A simple guide and reference (sixteenth) ed.* Routledge. <https://doi.org/10.4324/9780429056765>
- Gimenez-Fernandez, E. M., Sandulli, F. D., & Bogers, M. (2020). Unpacking liabilities of newness and smallness in innovative start-ups: Investigating the differences in innovation performance between new and older small firms. *Research Policy*, 49(10), 104049. <https://doi.org/10.1016/j.respol.2020.104049>
- Godos-Diez, J.-L., Cabeza-García, L., Martínez-Campillo, A., & Fernández-Gago, R. (2020). The Importance of Firm Size and Development Strategies for CSR Formalisation. In *Adapting to Environmental Challenges: New Research in Strategy and International Business* (pp. 107–131). <https://doi.org/10.1108/978-1-83982-476-020200006>
- Grimmer, L., Miles, M. P., Byrom, J., & Grimmer, M. (2017). The impact of resources and strategic orientation on small retail firm performance. *Journal of Small Business Management*, 55, 7–26. <https://doi.org/10.1111/jsbm.12368>
- Guilding, C. (1999). Competitor-focused accounting: An exploratory note. *Accounting, Organizations & Society*, 24(7), 583–595. [https://doi.org/10.1016/S0361-3682\(99\)00007-0](https://doi.org/10.1016/S0361-3682(99)00007-0)
- Haddock-Millar, J., Sanyal, C., & Müller-Camen, M. (2015). Green human resource management: A comparative qualitative case study of a United States multinational corporation. *The International Journal of Human Resource Management*, 27(2), 192–211. <https://doi.org/10.1080/09585192.2015.1052087>
- Hakala, H. (2011). Strategic orientations in management literature: Three approaches to understanding the interaction between market, technology, entrepreneurial and learning orientations. *International Journal of Management Reviews*, 13(2), 199–217. <https://doi.org/10.1111/j.1468-2370.2010.00292.x>
- Haleblian, J. J., McNamara, G., Kolev, K., & Dykes, B. J. (2012). Exploring firm characteristics that differentiate leaders from followers in industry merger waves: A competitive dynamics perspective. *Strategic Management Journal*, 33(9), 1037–1052. <https://doi.org/10.1002/smj.1961>
- Hambrick, D. C. (1983). Some tests of the effectiveness and functional attributes of miles and snow's strategic types. *Academy of Management Journal*, 26(1), 5–26. <https://doi.org/10.2307/256132>

- Handoyo, S., Mulyani, S., Ghani, E. K., & Soedarsono, S. (2023). Firm characteristics, business environment, strategic orientation, and performance. *Administrative Sciences*, 13(3), 74. <https://doi.org/10.3390/admsci13030074>
- Hawawini, G., Subramanian, V., & Verdin, P. (2003). Is performance driven by industry-or firm-specific factors? A new look at the evidence. *Strategic Management Journal*, 24(1), 1–16. <https://doi.org/10.1002/smj.278>
- Hellmann, T., & Puri, M. (2002). Venture capital and the professionalization of start-up firms: Empirical evidence. *The Journal of Finance*, 57(1), 169–197. <https://doi.org/10.1111/1540-6261.00419>
- Helmig, B., Hinz, V., & Ingerfurth, S. (2014). Extending miles & snow's strategy choice typology to the German hospital sector. *Health Policy*, 118(3), 363–376. <https://doi.org/10.1016/j.healthpol.2014.06.006>
- Henderson, A. D. (1999a). Firm strategy and age dependence: A contingent view of the liabilities of newness, adolescence, and obsolescence. *Administrative Science Quarterly*, 44(2), 281–314. <https://doi.org/10.2307/2666997>
- Henderson, A. D. (1999b). Firm strategy and age dependence: A contingent view of the liabilities of newness, adolescence, and obsolescence. *Administrative Science Quarterly*, 44(2), 281–314. <https://doi.org/10.2307/2666997>
- Higgins, D., Omer, T. C., & Phillips, J. D. (2015). The influence of a firm's business strategy on its tax aggressiveness. *Contemporary Accounting Research*, 32(2), 674–702. <https://doi.org/10.1111/1911-3846.12087>
- Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2019). *Strategic management: concepts and cases: Competitiveness and globalization*. Cengage Learning.
- Huang, K.-F., Dyerson, R., Wu, L.-Y., & Harindranath, G. (2015). From temporary competitive advantage to sustainable competitive advantage. *British Journal of Management*, 26(4), 617–636. <https://doi.org/10.1111/1467-8551.12104>
- Ittner, C. D., Larcker, D. F., & Rajan, M. V. (1997). The choice of performance measures in annual bonus contract. *The Accounting Review*, 72(2), 231–255. <http://www.jstor.org/stable/248554>
- Jiang, C. X., Chua, R. Y. J., Kotabe, M., & Murray, J. Y. (2011). Effects of cultural ethnicity, firm size, and firm age on senior executives' trust in their overseas business partners: Evidence from China. *Journal of International Business Studies*, 42(9), 1150–1173. <https://doi.org/10.1057/jibs.2011.35>
- Johnson, J. L., Martin, K. D., & Saini, A. (2012). The role of a firm's strategic orientation dimensions in determining market orientation. *Industrial Marketing Management*, 41(4), 715–724. <https://doi.org/10.1016/j.indmarman.2011.09.011>
- Jusoh, R., & Parnell, J. A. (2008). Competitive strategy and performance measurement in the Malaysian context. *Management Decision*, 46(1), 5–31. <https://doi.org/10.1108/00251740810846716>
- Karagouni, G. (2018). Production technologies and low-technology knowledge-intensive venturing. *EuroMed Journal of Business*, 13(1), 75–85. <https://doi.org/10.1108/emjb-11-2016-0033>
- Katchova, A. L., Enlow, S. J., & Paulson, N. (2013). Financial performance of publicly-traded agribusinesses. *Agricultural Finance Review*, 73(1), 58–73. <https://doi.org/10.1108/00021461311321311>
- Ke, Q., Isaac, D., & Dalton, P. (2008). The determinants of business performance of estate agency in England and Wales. *Property Management*, 26(4), 255–272. <https://doi.org/10.1108/02637470810894894>
- Kharatyan, D., Nunes, A., & Lopes, J. (2016). Financial ratios and indicators that determine return on equity. *XVII-Encuentro AECA*.
- Kim, C. J., & Ali, Z. (2017). *Efficient Management of State-Owned Enterprises: Challenges and Opportunities* (ADB Policy Brief, Issue 2017-4). <https://www.adb.org/sites/default/files/publication/390251/adbi-pb2017-4.pdf>
- Kowalski, P., Büge, M., Sztajerowska, M., & Egeland, M. (2013). *State-owned enterprises*. <https://doi.org/10.1787/5k4869cckqk7l-en>
- Kumar, K., Boesso, G., Favotto, F., & Menini, A. (2012). Strategic orientation, innovation patterns and performances of SMEs and large companies. *Journal of Small Business and Enterprise Development*, 19(1), 132–145. <https://doi.org/10.1108/14626001211196442>
- Lai, Y., Saridakis, G., Blackburn, R., & Johnstone, S. (2016). Are the HR responses of small firms different from large firms in times of recession? *Journal of Business Venturing*, 31(1), 113–131. <https://doi.org/10.1016/j.jbusvent.2015.04.005>
- Laufs, K., & Schwens, C. (2014). Foreign market entry mode choice of small and medium-sized enterprises: A systematic review and future research agenda. *International Business Review*, 23(6), 1109–1126. <https://doi.org/10.1016/j.ibusrev.2014.03.006>
- Lin, C., Chiu, Y. W., Chen, W. C., & Ting, S. F. (2020). Exploring differences in competitive performance based on miles and snow's strategy typology for the semiconductor industry [Article]. *Industrial Management & Data Systems*, 120(6), 1125–1148. <https://doi.org/10.1108/IMDS-10-2019-0547>
- Lin, C., Tsai, H.-L., & Wu, J.-C. (2014). Collaboration strategy decision-making using the miles and snow typology. *Journal of Business Research*, 67(9), 1979–1990. <https://doi.org/10.1016/j.jbusres.2013.10.013>
- Liu, Q., Qu, X., Wang, D., Abbas, J., & Mubeen, R. (2022). Product market competition and firm performance: Business survival through innovation and entrepreneurial orientation amid COVID-19 financial crisis. *Frontiers in Psychology*, 5487. <https://doi.org/10.3389/fpsyg.2021.790923>
- Liu, X., Wright, M., & Filatotchev, I. (2013). Learning, firm age and performance: An investigation of returnee entrepreneurs in Chinese high-tech industries. *International Small Business Journal: Researching Entrepreneurship*, 33(5), 467–487. <https://doi.org/10.1177/0266242613508147>
- Li, Y., Zhang, Y. A., & Shi, W. (2019). Navigating geographic and cultural distances in international expansion: The paradoxical roles of firm size, age, and ownership. *Strategic Management Journal*, 41(5), 921–949. <https://doi.org/10.1002/smj.3098>
- Luoma, M. A. (2015). Revisiting the strategy-performance linkage. *Management Decision*, 53(5), 1083–1106. <https://doi.org/10.1108/md-10-2014-0593>
- MacKinnon, D. P., Cox, S., & Baraldi, A. N. (2012). Guidelines for the investigation of mediating variables in business research. *Journal of Business & Psychology*, 27(1), 1–14. <https://doi.org/10.1007/s10869-011-9248-z>
- Madanoglu, M., Okumus, F., & Avci, U. (2014). Building a case against strategic equifinality. *Management Decision*, 52(6), 1174–1193. <https://doi.org/10.1108/md-03-2013-0131>
- Maris, R., & Dorner, Z. (2022). An analysis of operating profit margin: A valuable tool for New Zealand dairy farmers. *New Zealand Economic Papers*, 1–18. <https://doi.org/10.1080/00779954.2022.2156383>
- Maté-Sánchez-Val, M., López-Hernández, F., & Rodríguez Fuentes, C. C. (2018). Geographical factors and

- business failure: An empirical study from the madrid metropolitan area. *Economic Modelling*, 74, 275–283. <https://doi.org/10.1016/j.econmod.2018.05.022>
- McEvoy, G. M., & Buller, P. F. (2013). Research for Practice: The management of expatriates. *Thunderbird International Business Review*, 55(2), 213–226. <https://doi.org/10.1002/tie.21536>
- Mellahi, K., & Wilkinson, A. (2004). Organizational failure: A critique of recent research and a proposed integrative framework. *International Journal of Management Reviews*, 5-6(1), 21–41. <https://doi.org/10.1111/j.1460-8545.2004.00095.x>
- Miles, R., & Snow, C. (1978). *Organizational strategy, structure, and process*. McGraw-Hill.
- Moss, T. W., Payne, G. T., & Moore, C. B. (2013). Strategic consistency of exploration and exploitation in family businesses. *Family Business Review*, 27(1), 51–71. <https://doi.org/10.1177/0894486513504434>
- Murthi, B. P. S., Rasheed, A. A., & Goll, I. (2013). An empirical analysis of strategic groups in the airline industry using latent class regressions. *Managerial and Decision Economics*, 34(2), 59–73. <https://doi.org/10.1002/mde.2574>
- Nakara, W. A., Benmoussa, F. Z., & Jaouen, A. (2012). Entrepreneurship and social media marketing: Evidence from French small business. *International Journal of Entrepreneurship & Small Business*, 16(4), 386. <https://doi.org/10.1504/ijesb.2012.047608>
- Narver, J. C., Slater, S. F., & MacLachlan, D. L. (2004). Responsive and proactive market orientation and new-product success. *Journal of Product Innovation Management*, 21(5), 334–347. <https://doi.org/10.1111/j.0737-6782.2004.00086.x>
- Navissi, F., Sridharan, V. G., Khedmati, M., Lim, E. K., & Evdokimov, E. (2016). Business strategy, over-(under-) investment, and managerial compensation. *Journal of Management Accounting Research*, 29(2), 63–86. <https://doi.org/10.2308/jmar-51537>
- Nimtrakoon, S., & Tayles, M. (2015). Explaining management accounting practices and strategy in Thailand. *Journal of Accounting in Emerging Economies*, 5(3), 269–298. <https://doi.org/10.1108/jaee-02-2013-0012>
- NSB. (2018). *Science and engineering indicators*. National Science Board. <https://www.nsf.gov/statistics/2018/nsb20181/assets/nsb20181.pdf>
- O'Cass, A., & Julian, C. (2003). Examining firm and environmental influences on export marketing mix strategy and export performance of Australian exporters. *European Journal of Marketing*, 37(3/4), 366–384. <https://doi.org/10.1108/03090560310459005>
- O'Cass, A., & Weerawardena, J. (2009). Examining the role of international entrepreneurship, innovation and international market performance in SME internationalisation. *European Journal of Marketing*, 43(11/12), 1325–1348. <https://doi.org/10.1108/03090560910989911>
- Olson, E. M., Slater, S. F., & Hult, G. T. M. (2005). The performance implications of fit among business strategy, marketing organization structure, and strategic behavior. *Journal of Marketing*, 69(3), 49–65. <https://doi.org/10.1509/jmkg.69.3.49.66362>
- Olteanu, D. (2010). Technology-intensive industries – Input-output analysis, *Working Papers*, No. 100206, Romanian Academy, National Institute for Economic Research, <http://www.workingpapers.ro/2010/wpince100206.pdf>
- O'Regan, N., & Ghebadian, A. (2006). Perceptions of generic strategies of small and medium sized engineering and electronics manufacturers in the UK. *Journal of Manufacturing Technology Management*, 17(5), 603–620. <https://doi.org/10.1108/17410380610668540>
- Otache, I. (2019). The mediating effect of teamwork on the relationship between strategic orientation and performance of Nigerian banks. *European Business Review*, 31(5), 744–760. <https://doi.org/10.1108/ebur-10-2017-0183>
- Ozer, M., & Markóczy, L. (2010). Complementary or alternative? The effects of corporate political strategy on innovation. *Journal of Strategy and Management*, 3 (3), 252–272. <https://doi.org/10.1108/17554251011064846>
- Panda, D. (2015). Growth determinants in small firms: Drawing evidence from the Indian agro-industry. *International Journal of Commerce & Management*, 25(1), 52–66. <https://doi.org/10.1108/IJCoMa-12-2012-0080>
- Park, Y., & El Sawy, O. A. (2013). Chapter 9 the value of configurational approaches for studying digital business strategy. In *Configurational Theory and Methods in Organizational Research* (pp. 205–224). [https://doi.org/10.1108/s0733-558x\(2013\)0000038013](https://doi.org/10.1108/s0733-558x(2013)0000038013)
- Park, E. H., & Luo, Y. (2001). Guanxi and organizational dynamics: Organizational networking in Chinese Firms. *Strategic Management Journal*, 22(5), 455–477. <https://doi.org/10.1002/smj.167>
- Park, C., Vertinsky, I., & Becerra, M. (2015). Transfers of tacit vs. explicit knowledge and performance in international joint ventures: The role of age. *International Business Review*, 24(1), 89–101. <https://doi.org/10.1016/j.ibusrev.2014.06.004>
- Parnell, J. A., Koseoglu, M. A., Long, Z., & Spillan, J. E. (2012). Competitive strategy, uncertainty, and performance: An exploratory assessment of China and Turkey. *Journal of Transnational Management*, 17(2), 91–117. <https://doi.org/10.1080/15475778.2012.676957>
- Passiante, G., & Romano, A. (2016). *Creating technology-driven entrepreneurship foundations, processes and environments*. Palgrave Macmillan. <https://doi.org/10.1057/978-1-137-59156-2>
- Peljhan, D., Miloš Sprčić, D., & Marc, M. (2018). Chapter 4 strategy and organizational performance: The role of risk management system development. In *Performance Measurement and Management Control: The Relevance of Performance Measurement and Management Control Research* (pp. 65–91). <https://doi.org/10.1108/s1479-35122018000033004>
- Peng, M. W., Bruton, G. D., Stan, C. V., & Huang, Y. (2016). Theories of the (state-owned) firm. *Asia Pacific Journal of Management*, 33(2), 293–317. <https://doi.org/10.1007/s10490-016-9462-3>
- Perez-Valls, M., Cespedes-Lorente, J., & Moreno-Garcia, J. (2016). Green practices and organizational design as sources of strategic flexibility and performance. *Business Strategy and the Environment*, 25(8), 529–544. <https://doi.org/10.1002/bse.1881>
- Peteraf, M. A., & Barney, J. B. (2003). Unraveling the resource-based tangle. *Managerial and Decision Economics*, 24(4), 309–323. <https://doi.org/10.1002/mde.1126>
- Pleshko, L. P., Heiens, R. A., & Peev, P. (2014). The impact of strategic consistency on market share and ROA. *International Journal of Bank Marketing*, 32(3), 176–193. <https://doi.org/10.1108/ijbm-06-2013-0057>
- Porter, M. E. (2008). The five competitive forces that shape strategy. *Harvard Business Review*, 86(1), 78.
- PwC. (2015). *State owned enterprises : Catalysts for public value creation*. <https://pwc.to/2Uu2NoF>
- Qi, Y., Zhao, X., & Sheu, C. (2011). The impact of competitive strategy and supply chain strategy on business

- performance: The role of environmental uncertainty. *Decision Sciences*, 42(2), 371–389. <https://doi.org/10.1111/j.1540-5915.2011.00315.x>
- Rajaratnam, D., & Chonko, L. B. (2015). The effect of business strategy type on marketing organization design, product-market growth strategy, relative marketing effort, and organization performance. *Journal of Marketing Theory & Practice*, 3(3), 60–75. <https://doi.org/10.1080/10696679.1995.11501696>
- Raymond, L., & St-Pierre, J. (2005). Antecedents and performance outcomes of advanced manufacturing systems sophistication in SMEs. *International Journal of Operations & Production Management*, 25(6), 514–533. <https://doi.org/10.1108/01443570510599692>
- Ribeiro, R., Rossetto, C. R., & Verdinelli, M. A. (2011). Strategic behavior and resource-based view: A study in construction material retail sector [Article]. *Gestao e Producao*, 18(1), 175–192. <https://doi.org/10.1590/S0104-530X2011000100013>
- Ripollés, M., & Blesa, A. (2015). Development of interfirm network management activities: The impact of industry, firm age and size. *Journal of Management & Organization*, 22(2), 186–204. <https://doi.org/10.1017/jmo.2015.35>
- Saraç, M., Ertan, Y., & Yücel, E. (2014). How do business strategies predict firm performance? An investigation on borsa istanbul 100 index. *Journal of Accounting & Finance*, (61). <http://journal.mufad.org.tr/attachments/article/725/8.pdf>
- Schneider, A., Wickert, C., & Marti, E. (2017). Reducing complexity by creating complexity: A systems theory perspective on how organizations respond to their environments. *Journal of Management Studies*, 54(2), 182–208. <https://doi.org/10.1111/joms.12206>
- Secundo, G., Schiuma, G., & Passiante, G. (2017). Entrepreneurial learning dynamics in knowledge-intensive enterprises. *International Journal of Entrepreneurial Behavior & Research*, 23(3), 366–380. <https://doi.org/10.1108/ijeb-01-2017-0020>
- Shinkle, G. A., & Kriacunas, A. P. (2009). Institutions, size and age in transition economies: Implications for export growth. *Journal of International Business Studies*, 41(2), 267–286. <https://doi.org/10.1057/jibs.2009.9>
- Shoham, A., & Lev, S. (2015). The miles and snow strategic typology and its performance implications. *Proceedings of the Global Perspectives in Marketing for the 21st Century*, Qawra (Malta). Cham.
- Sirmon, D. G., & Hitt, M. A. (2009). Contingencies within dynamic managerial capabilities: Interdependent effects of resource investment and deployment on firm performance. *Strategic Management Journal*, 30(13), 1375–1394. <https://doi.org/10.1002/smj.791>
- Slater, S. F., Hult, G. T. M., & Olson, E. M. (2007). On the importance of matching strategic behavior and target market selection to business strategy in high-tech markets. *Journal of the Academy of Marketing Science*, 35(1), 5–17. <https://doi.org/10.1007/s11747-006-0002-4>
- Slater, S. F., Olson, E. M., & Finnegan, C. (2011). Business strategy, marketing organization culture, and performance. *Marketing Letters*, 22(3), 227–242. <https://doi.org/10.1007/s11002-010-9122-1>
- Sørensen, J. B., & Stuart, T. E. (2000). Aging, obsolescence, and organizational innovation. *Administrative Science Quarterly*, 45(1), 81–112. <https://doi.org/10.2307/2666980>
- Spangenberg, H., & Theron, C. (2013). A critical review of the Burke-Litwin model of leadership, change and performance. *Management Dynamics: Journal of the Southern African Institute for Management Scientists*, 22(2), 29–48. <https://doi.org/10.10520/EJC141248>
- Stone-Romero, E. F., & Rosopa, P. J. (2010). Experimental tests of mediation models. *Organizational Research Methods*, 14(4), 631–646. <https://doi.org/10.1177/1094428110372673>
- Storey, C., & Hughes, M. (2013). The relative impact of culture, strategic orientation and capability on new service development performance. *European Journal of Marketing*, 47(5/6), 833–856. <https://doi.org/10.1108/03090561311306903>
- Synthesis and Reexamination. *Journal of Marketing*. 59. 17–33. <https://doi.org/10.1177/002224299505900402>
- Szymanski, D. M., Troy, L. C., & Bharadwaj, S. G. (1995). Order of entry and business performance: An empirical synthesis and reexamination. *Journal of Marketing*, 59(4), 17. <https://doi.org/10.2307/1252325>
- Thomas, A., Litschert, R., & Ramaswamy, K. (1991). The performance impact of strategy-manager coalignment: An empirical examination. *Strategic Management Journal*, 12(7), 599–522. <https://doi.org/10.1002/smj.4250120704>
- Trevino, L. J., & Grosse, R. (2002). An analysis of firm-specific resources and foreign direct investment in the United States. *International Business Review*, 11(4), 431–452. [https://doi.org/10.1016/S0969-5931\(02\)00018-5](https://doi.org/10.1016/S0969-5931(02)00018-5)
- Voss, G. B., & Voss, Z. G. (2013). Strategic ambidexterity in small and medium-sized enterprises: Implementing exploration and exploitation in product and market domains. *Organization Science*, 24(5), 1459–1477. <https://doi.org/10.1287/orsc.1120.0790>
- Wang, Y., Ye, G., Zhang, Y., Mu, P., & Wang, H. (2020). Is the Chinese construction industry moving towards a knowledge- and technology-intensive industry? *Journal of Cleaner Production*, 259, 120964. <https://doi.org/10.1016/j.jclepro.2020.120964>
- Wennberg, K., Wiklund, J., & Wright, M. (2011). The effectiveness of university knowledge spillovers: Performance differences between university spinoffs and corporate spinoffs. *Research Policy*, 40(8), 1128–1143. <https://doi.org/10.1016/j.respol.2011.05.014>
- Wickert, C., Scherer, A. G., & Spence, L. J. (2016). Walking and talking corporate social responsibility: Implications of firm size and organizational cost. *Journal of Management Studies*, 53(7), 1169–1196. <https://doi.org/10.1111/joms.12209>
- Woolley, A. W. (2009). Offensive Vs. Defensive strategic orientation and collective information processing in teams. *Academy of Management Proceedings*, 2009(1), 1–6. <https://doi.org/10.5465/ambpp.2009.44246882>
- Yamakawa, Y., Yang, H., & Lin, Z. (2011). Exploration versus exploitation in alliance portfolio: Performance implications of organizational, strategic, and environmental fit. *Research Policy*, 40(2), 287–296. <https://doi.org/10.1016/j.respol.2010.10.006>
- Yang, F., Shinkle, G. A., & Goudsmit, M. (2022). The efficacy of organizational control interactions: External environmental uncertainty as a critical contingency. *Journal of Business Research*, 139, 855–868. <https://doi.org/10.1016/j.jbusres.2021.10.026>
- Yang, Y., Wang, Q., Zhu, H., & Wu, G. (2012). What are the effective strategic orientations for new product success under different environments? An empirical study of Chinese businesses. *Journal of Product Innovation Management*, 29(2), 166–179. <https://doi.org/10.1111/j.1540-5885.2011.00900.x>
- Zamani, S., Parnell, J. A., Labbaf, H., & O'Regan, N. (2013). Strategic change and decision making in an emerging nation: An exploratory assessment of Iranian manufacturing firms. *Strategic Change*, 22(5–6), 355–370. <https://doi.org/10.1002/jsc.1945>