THE INFLUENCE OF STRATEGIC ORIENTATION, ORGANIZATIONAL INNOVATION CAPABILITIES AND STRATEGIC PLANNING ON THE PERFORMANCE OF TECHNOLOGY-BASED FIRMS

Mohamad Rizan, Universitas Negeri Jakarta
Fathi Balfas, Universitas Negeri Jakarta
Unggul Purwohedi, Universitas Negeri Jakarta

ABSTRACT

This study aims to analyze the influence of strategic orientation, organizational innovation capability and strategic planning on the performance of SMEs. The research is important because of the limited number of studies that have analyzed these three variables simultaneously and viewed them from a technology-based SME perspective. In the study, 120 business owners of application firms were surveyed. The purposive sampling technique was used, with the employment of a number of criteria. Data from the survey were analyzed using Partial Least Square (PLS) modeling. This method was used as it has advantages in analyzing data from small samples and can be used for research with reflective and formative models. The results of the study indicate that strategic orientation, organizational innovation capability and strategic planning have positive and significant impacts on company performance.

Keywords: Strategic Orientation, Organizational Innovation Capabilities, Strategic Planning, Firm Performance, Application Development Firm.

INTRODUCTION

Firm performance is one of the biggest concerns in the strategic management literature (Venkatraman & Ramanujam, 1986; Sosiawani et al., 2015). In the context of Small and Medium Enterprises (SMEs), much research has been conducted to identify antecedents of SMEs with good business performance so that such companies can perform better. Freel (2000), Verhees & Meulenberg (2004) and Westerberg & Vincent (2008) claim that SMEs will achieve improved performance if they are more intensive in presenting innovative activities, because the implementation of innovation is able to provide clear direction and become a source of competitive advantage (Kiyyuru, 2015). The ability of SMEs to behave in an innovative way will help them to survive in the competitive business environment (Johnson et al., 1997) and even achieve superior performance (Hurley & Hult, 1998).

Several previous studies have confirmed the importance of strategic orientation as a factor contributing to company performance (Hakala, 2011), even at the level of SMEs (Deshpande et al., 2012; M’zingu et al., 2017). Therefore companies will show different levels of applying such orientation (Eitrem & Oberg, 2018). At the academic level, the concept of strategic orientation is used intensively in the fields of strategy, entrepreneurship and marketing (Grawe et al., 2009). Nzewi et al. (2017) emphasize that companies that implement strategic planning correctly will be able to face the challenges of changes in the external environment. The
ability to conduct strategic planning is also considered capable of influencing company performance, including family businesses (Donkor & Karkam-Kwarteng, 2017).

Drawing upon these conditions, the research attempts to analyze the three antecedents as proxies in predicting the performance of SMEs. The selection of SMEs for the study sample is based on their dominance in the absorption of Indonesian workers, employing 97.22% of the workforce and contributing 57.12% to total GDP. Indonesia is also experiencing a digital transformation of the economy, as reflected by the growth of internet users and data from the Ministry of Communications and Informatics in 2015, which show that the valuation of the digital economy reached USD 3.56 billion and grew to USD 4.89 billion in the following years. As the main stakeholders managing the national economy, the government is preparing several sets of policies to accelerate the digital economy, such as the “Thousand Technopreneur” program (Agustine & Oktarinda, 2016). These empirical facts indicate the government's commitment to Indonesia's readiness to connect to the globalized economy. Therefore, the contribution of this study will provide empirical evidence for the influence of strategic orientation on SMEs, a field which is still dominated by the large-scale company context (Gray & Lawless, 2000) in Indonesia as a developing country (Suklev & Debarliev, 2012).

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Strategic Orientation and Firm Performance

Strategic orientation is an option that can create capabilities dynamically in a constantly changing business environment and enable companies to respond quickly to these changes (Al-Barghouthi, 2014). Morgan & Strong (2003) state that strategic orientation refers to how a company responds to factors in the business environment. Therefore, such orientation is often portrayed as a predictor of high performing firms which have a competitive advantage (Baker & Sinkula, 2009; Kaya & Seyrek, 2005). Consequently, firms that adopt a strategic orientation will be able to predict the potential for external changes in the business environment and adapt to them.

Gatignon & Xuereb (1997) emphasize that start-up orientation can encourage corporate behavior to be more oriented towards creating competitiveness. This is because such strategic orientation will guide the company’s strategy formulation (Noble et al., 2002). On a practical level, strategic orientation will have implications for small and medium-sized enterprises through the process of developing new creative ideas because of the competition that face from larger companies with lower entry barriers (Lee, 2011). The literature on strategic orientation is dominated by the work of Kohli & Jaworski (1990) and Narver & Slater (1990). Kohli & Jaworski (1990) emphasize market orientation as a process of gathering intelligence information that is distributed to the internal organization, and how the organization behaves in translating this information. On the other hand, Narver & Slater (1990) focus on market orientation as an organizational cultural function that improves customer focus. Therefore, the ideas of Kohli & Jaworski (1990) are considered to be more behaviorally oriented, while those of Narver & Slater (1990) are more culturally oriented (Jaakkola, 2012).

Several previous studies have found a link between firms’ capability to implement strategic orientation and company performance. Altuntaş et al. (2013) conducted research on healthcare providers in Turkey through a combination of email surveys and telephone interviews with 74 companies. They found that there was a relationship between strategic orientation and company performance. Moreover, Ho (2014) also found that strategic orientation influences
Company performance, especially in industries with a high level of competition, such as technology-based companies. In the context of SMEs, Abiodun & Kida (2016) conducted a study of 238 such companies and found a positive and significant relationship between strategic orientation and their performance. Therefore, it is hypothesized that:

\[ H_1: \text{Strategic orientation affects firm performance.} \]

**Innovation Capability and Firm Performance**

Calantone et al. (2002) define innovation capabilities at a firm level as the identification of something new. Guan & Ma (2003) argue that innovation capabilities on a broader scope are capable of meeting the needs of enterprises to adapt to a variety of competitive business and environmental conditions. A different definition is also proposed by Romijn & Albaladejo (2002), who define organizational capabilities in terms of further emphasizing technological process utilization through the process of absorbing the knowledge and skills that organizations need to develop technology efficiently. Wonglimpiyarat (2010) and Romijn & Albaladejo (2002) all emphasize that the capabilities of innovation need to be directed to create substantial improvements and modifications to current technology and to create new technologies.

Marketing specialists identify two typical innovations. First, innovation as an output of various strategies or actions undertaken to introduce corporate innovations, in relation to new products, brands, line extensions or consumer services (Baker & Sinkula, 2009). Second, innovation represents a company's openness or acceptance of new ideas (Verhees & Meulenberg, 2004). Atalay et al. (2013) conducted a study on the automotive supplier industry in Turkey, with 113 senior managers comprising the sample. They found that there was a relationship between product, process, organizational and marketing innovation and company performance. Hassan et al. (2013) also conducted research based on samples of manufacturing sector managers in Pakistan, also finding that market innovations affect organizational innovation. Research conducted by Rosli & Sidek (2013) on manufacturing-based SMEs in Malaysia found that there was a positive relationship between product and process innovation and company performance. Efendioglu & Karabulut (2010) made a study of 197 manufacturing companies in Turkey and also found a relationship between marketing, organizational and product innovation and corporate performance. Therefore, it is hypothesized that:

\[ H_2: \text{Innovation capabilities affect firm performance.} \]

**Strategic Planning and Firm Performance**

Strategic planning is defined as a systematic effort to build interaction among the main stakeholders so as to increase a company’s responsiveness to its business environment (Suklev & Debarliev, 2012). Mosoti & Murabu (2014) provide a definition of strategic planning as an attempt to adjust the relative strength of the firm. Such planning is fundamental and is a standard paradigm and method in the strategic management literature. The significance of strategic planning in corporate performance has been a major theme of previous research (Abosede et al., 2016; Efendioglu & Karabulut, 2010; Falshaw et al., 2006; Skokan et al., 2013). From a practical point of view, strategic planning is considered crucial for companies to develop longer organizational life cycles and to create competitiveness (Al-Shaikh, 2001).
In the context of SMEs, strategic planning contributes positively to company performance. Berman et al. (1997) found that there was a positive relationship between strengthening sales growth and the implementation of sophisticated strategic planning. Moreover, Olson & Bokor (1995) observed that start-up firms’ formal strategic planning improved business performance. Delmar & Shane (2003) found that strategic planning will reduce the probability of failure in venture firms and increase the likelihood that their business will survive. Kee-Luen et al. (2013) conducted a study on the Malaysian SME sector and discovered a positive relationship between strategic planning and company performance. Similarly, Hakimpoor (2014) found an influence of strategic planning on corporate performance, as measured by financial and non-financial indicators in the SME sector. Sandada et al. (2014), in their research on South African SME managers and owners, also found a positive influence of strategic planning on the business performance of SMEs. Similarly, Agyapong (2012) found a positive relationship between strategic planning and corporate performance, for micro, small and large companies. Therefore, the third hypothesis is:

**H3:** Strategic planning affects the firm performance of SMEs.

Based on the hypothesis formulation, a conceptual framework has been developed, as shown in Figure 1.

![Conceptual Framework](image)

**FIGURE 1**

**CONCEPTUAL FRAMEWORK**

**RESEARCH METHODS**

A quantitative research approach with a cross-sectional research design is employed. Quantitative research approaches are viewed as positivist ontologies, a worldview in which reality can be accessed and translated by human cognitive abilities (Sivageahnam et al., 2015). The study involved 120 samples of small business application development firm owners in the province of Jakarta. In order to obtain information about the existence of SMEs, the researcher used a database compiled by an independent marketing research firm in Jakarta. The sampling method used was purposive sampling, with the sample defined by the researcher. The data
collection process took place from the second week of August to the first week of September 2017.

A strategic orientation variable was developed from the three sub-variables that dominate the literature, namely market orientation (Lambin & Chumpitaz, 2001), learning orientation (Calantone et al., 2002) and entrepreneurial orientation (Wiklund & Shepherd, 2005). The capability of organizational innovation was developed through four sub-variables of product innovation (Hassan et al., 2013), process innovation (Polder et al., 2010), marketing innovation (Hassan et al., 2013; Johne, 1999) and organizational innovation (Hassan et al., 2013; Polder et al., 2010). The strategic planning variables were adopted from Segars et al. (1998) and Papke-Shields et al. (2006).

For the dependent variable, firm performance, subjective approach is used rather than objective approach (Greenley & Foxall, 1997; Gunday et al., 2011; Wall et al., 2004). This approach uses managerial perceptions as the basis for measurement, whereas the various performance indicators of the business functions (financial performance, marketing, production or innovation) are used as the basis for an objective approach. In this study, subjective approach is used due to the limitations of accessing financial statements. Gergely et al. (2018) argument is agreed by stating that there is still considerable doubt among researchers related to the competence of entrepreneurs/SME actors to accurately provide corporate accounting information, including the tendency of SMEs to avoid allowing to access to corporate financial data. A 1-5 Likert scale was used as the parameter of measurement. For the three independent variables, a scale of approval level was employed. The dependent variable of the study used the scale of the expected evaluation level.

The research uses the Partial Least Square (PLS) modeling approach, which is considered to be the antithesis of Structural Equation Modeling (SEM). PLS is used for predictive purposes and theory development, while SEM (covariance based) is intended for theory testing and confirmatory purposes. Compared to covariance-based SEM, PLS analysis has advantages in terms of criteria and more flexible statistical interpretations, such as not emphasizing certain assumptions; being able to predict theoretical models that have not been too robust; being able to estimate the parameters by consistently increasing according to the number of samples; processing data that is less ideal in terms of classical assumption tests; having the ability to process small sample data; being able to increase statistical power through more data convergence; analyzing models with high complexity; and allowing reflective and formative constructive testing (Henseler, 2010; Jogiyanto & Abdillah, 2011; Sarstedt et al., 2014; Tenenhaus et al., 2005). With this range of flexibility, Monecke & Leisch (2012) mention that PLS is a soft-modeling technique.

RESULTS AND DISCUSSION

The first stage in measuring PLS modeling is by evaluating the measurement model. Specifically, this model includes two tests, namely ones of validity and reliability (Chin, 2010). In order to have a robust model, it is important to test the convergent validity to ensure the suitability of the question items that reflect the research variables. One approach that is taken is to test the correlation between the question items and the research variables. A question item is considered to reflect a variable well if its correlation value reaches 0.5. During the preliminary analysis, it is found that the factor loading of some indicators was lower than 0.5. Consequently, these are dropped from the full model for further analysis. In total, there were 16 indicators in the model for all constructs. Figure 2 shows that all the indicators’ factor loadings are above 0.5.
Moreover, discriminant validity analysis is performed with the cross-loadings approach. Evaluation of this was made by observing the value of the cross-loadings and comparing the scores between the constructs (Table 1). An indicator which belongs to a certain construct must have higher factor loading to its construct compared to other constructs.

### Table 1

**DISCRIMINANT VALIDITY BY CROSS LOADING**

<table>
<thead>
<tr>
<th></th>
<th>Organizational innovation capabilities (KAPINORG)</th>
<th>Firm performance (KP)</th>
<th>Strategic Orientation (ORISTAT)</th>
<th>Strategic Planning (PS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAPINORG10</td>
<td>0.541</td>
<td>0.326</td>
<td>0.09</td>
<td>0.425</td>
</tr>
<tr>
<td>KAPINORG11</td>
<td>0.494</td>
<td>0.224</td>
<td>0.175</td>
<td>0.456</td>
</tr>
<tr>
<td>KAPINORG13</td>
<td>0.577</td>
<td>0.355</td>
<td>0.164</td>
<td>0.323</td>
</tr>
<tr>
<td>KAPINORG14</td>
<td>0.654</td>
<td>0.47</td>
<td>0.226</td>
<td>0.488</td>
</tr>
<tr>
<td>KAPINORG15</td>
<td>0.571</td>
<td>0.386</td>
<td>0.05</td>
<td>0.498</td>
</tr>
<tr>
<td>KAPINORG16</td>
<td>0.646</td>
<td>0.357</td>
<td>0.171</td>
<td>0.315</td>
</tr>
<tr>
<td>KAPINORG8</td>
<td>0.529</td>
<td>0.35</td>
<td>0.326</td>
<td>0.315</td>
</tr>
<tr>
<td>KAPINORG9</td>
<td>0.551</td>
<td>0.386</td>
<td>0.298</td>
<td>0.385</td>
</tr>
<tr>
<td>KP1</td>
<td>0.424</td>
<td>0.764</td>
<td>0.261</td>
<td>0.561</td>
</tr>
<tr>
<td>KP2</td>
<td>0.558</td>
<td>0.778</td>
<td>0.327</td>
<td>0.342</td>
</tr>
<tr>
<td>ORISTRA13</td>
<td>0.193</td>
<td>0.237</td>
<td>0.616</td>
<td>0.196</td>
</tr>
<tr>
<td>ORISTRA5</td>
<td>0.225</td>
<td>0.203</td>
<td>0.567</td>
<td>0.141</td>
</tr>
<tr>
<td>ORISTRA7</td>
<td>0.227</td>
<td>0.294</td>
<td>0.746</td>
<td>0.191</td>
</tr>
<tr>
<td>PS1</td>
<td>0.445</td>
<td>0.424</td>
<td>0.083</td>
<td>0.767</td>
</tr>
<tr>
<td>PS2</td>
<td>0.467</td>
<td>0.376</td>
<td>0.228</td>
<td>0.501</td>
</tr>
<tr>
<td>PS3</td>
<td>0.49</td>
<td>0.368</td>
<td>0.251</td>
<td>0.728</td>
</tr>
</tbody>
</table>

**FIGURE 2**

FULL MODEL
Hence, the reliability was tested by conducting a composite reliability test. The data show that the composite reliability for each construct is above 0.5 (Table 2), as recommended by Hair et al. (2016).

<table>
<thead>
<tr>
<th>Construct</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Innovation Capabilities</td>
<td>0.795</td>
</tr>
<tr>
<td>Firm Performance</td>
<td>0.745</td>
</tr>
<tr>
<td>Strategic Orientation</td>
<td>0.681</td>
</tr>
<tr>
<td>Strategic Planning</td>
<td>0.71</td>
</tr>
</tbody>
</table>

The results of the first hypothesis test show that the strategic orientation variable has a positive and significant influence on company performance. The findings of this study are strengthened by research conducted by Laukkanen et al. (2013) on 1120 SMEs in several countries. Therefore, this study confirms and is consistent with previous research that has observed a positive relationship between strategic orientation and firm performance of SMEs scale. This can be a reference that strategic orientation becomes antecedent to company performance. Specifically, Narver & Slater (1990) argue that an organization can achieve its optimal potential when driven by an entrepreneurial orientation, which is one of the strategic orientation variants (Table 3).

<table>
<thead>
<tr>
<th>Table 3 PATH COEFFICIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Sample (O)</td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>Organizational Innovation Capabilities → Firm Performance</td>
</tr>
<tr>
<td>Strategic Orientation → Firm Performance</td>
</tr>
<tr>
<td>Strategic Planning → Firm Performance</td>
</tr>
</tbody>
</table>

The results of the second hypothesis test show that the organizational innovation capability variable has a positive and significant influence on firm performance. Similarly, Hassan et al. (2013) conducted research on a sample of managers in the Pakistani manufacturing sector, finding that market innovations affected organizational performance. Eggert et al. (2014) also found a positive influence of product innovation on revenue growth and profitability in a study of 588 industrial products.

The results of the third hypothesis test show that the organizational strategic planning variable has a positive and significant influence on firm performance. Hakimpoor (2014) found a positive relationship between strategic planning and firm performance, as measured through financial and non-financial indicators. Sandada et al. (2014), in their study of managers and owners of MSMEs in South Africa, found a positive influence of strategic planning on their business performance. Similarly, Acquaah & Agyapong (2015) found a positive relationship between strategic planning and the performance of SMEs. From overall side, these three antecedents confirming previous studies result and the finding help manager to better formulate business strategies.
CONCLUSION AND SUGGESTIONS

This research sought to investigate the influence of strategic orientation, organizational innovation capability and strategic planning on company performance. The results indicate that the three predictors showed a positive and significant influence on company performance. Therefore, some important findings need to be addressed. First, it is important for companies to adopt a strategic orientation, organizational innovation capability, and strategic planning in their business practices. The intensity of the implementation of these three predictors will further strengthen company performance. Second, at the aggregate level, if the enterprise application development scale of SMEs is collectively and consistently implemented in terms of the three predictors, then overall industry performance will be improved. This is important, as the government has demonstrated strong commitment to developing an inclusive digital economy.

In further research, some methodological improvements could be made. First, this study should ideally be a pre-test stage with a small sample in order to test the validity of the question items before being tested in the survey with a larger sample. Second, company performance has been measured by a managerial perception proxy. In order to obtain a different perspective, future research could use a quantitative data-based performance proxy. Third, further research should focus on an analysis of the factors which are the antecedents of strategic orientation in order to make an in-depth analysis.

REFERENCES


