Market Orientation and Innovation Performance: Mediating Effects of Customer Engagement in SMEs

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ABSTRACT

This study's objective is to develop an innovation performance model based on the role of market orientation and customer engagement. Market-oriented practices through customer engagement will enable companies to achieve innovation performance. This research was conducted on small and medium enterprises (SMEs) engaged in manufacturing in Bali. A conceptual model was developed to determine the mediating role of customer engagement in the relationship between market orientation and innovation performance. The research design used was cross-sectional. Quantitative data were collected from 242 respondents by distributing questionnaires to managers and owners of manufacturing SMEs in Bali. The model was tested using Partial Least Square (PLS). The results of this study show that market orientation has a significant positive effect on innovation performance, market orientation has a positive effect on customer engagement, customer engagement has a positive effect on innovation performance, and customer engagement partially mediates the relationship between market orientation and innovation performance. The results of this study are expected to be able to increase managers' insight and understanding of the mechanisms of how market orientation and customer engagement can contribute to innovation performance in export-oriented SMEs.

1. INTRODUCTION

Small and medium enterprises (SMEs) play a role as a source of new, innovative ideas. Globally, small and medium enterprises (SMEs) have a strategic role in the economy and control 99 percent of the total businesses (Buli, 2017). Cronin-Gilmore (2012) identifies SMEs as employment opportunities, wealth creation, equitable distribution of income, and economic growth. In Indonesia, the empowerment of manufacturing SMEs has a

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strategic role in driving economic activity and a source of welfare. In emerging markets like Indonesia, there has been a massive transformation of structural changes in the context of growth and prosperity (Riwayati, 2017).

Most of the manufacturing SMEs in Bali are engaged in export commodities and are categorized as manufacturing SMEs in the woodcraft and textile industry. In the export sector, SMEs can make a significant contribution to Bali. In 2017, Bali’s manufacturing SMEs were able to generate foreign exchange of US $ 94,308,024 (Bali Provincial Statistics Agency, 2018).

The data shows that the leading export SMEs have great potential and contribution to the economy in Bali. However, SMEs are vulnerable to resource constraints. On the other hand, rapid technological adaptation and opportunities to play a role in the economy make SMEs necessary and vital to be developed (Buli, 2017). The dynamics of business opportunities and challenges, the rapid development of information technology, and rapidly changing customer preferences shape managerial assumptions and decision-making processes in many businesses, including small and medium enterprises. Determining the right form of marketing capabilities to develop and use is essential for achieving innovation performance, including strategic orientation decisions in pursuing opportunities and profitable customer value (Boso et al., 2013).

Innovation is universally considered the key to a company’s survival, by making the company better, different from competitors. Innovation performance is not only a determinant of success but also a significant factor for profit. Innovation performance shows the company’s achievements in both process and product innovation. Achievements, especially for the development of new products and processes, significantly improve performance in product and process innovation (Padilha & Gomes, 2016). Understanding how SMEs succeed in achieving business performance and what positive factors lead to better performance than competitors attracts researchers and practitioners (Ndubisi & Iftikhar, 2012). The literature has proven that market orientation activities can improve innovation performance (Zhang & Duan, 2010; Raju et al., 2011; Padilha & Gomes, 2016). However, other studies found no significant relationship between market orientation and innovation-related performance (Hilmi & Ramayah, 2010). At present, the concept of customer engagement in delivering value becomes a relevant instrument developed in achieving innovation performance (Ayuso et al., 2011). Customer engagement is determined by market orientation (Mamun et al., 2018).

This topic is interesting because it integrates customer engagement in the market orientation model and innovation performance (Zhang & Duan, 2010; Kaya & Patton, 2011; Mamun et al., 2018). Although the discussion of market orientation, customer engagement, and innovation performance is not a new theme, this study integrates constructs in models that are rarely discussed in the literature, especially research models with a theoretical background of resource-based views.

Thus the purpose of this study is to examine whether market orientation and customer engagement simultaneously have a positive effect on the development of innovation performance and whether customer engagement mediates the relationship between market orientation and innovation performance. This is the first research that holistically links market orientation and customer engagement with the outputs of innovation performance.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

The resource-based view (RBV) theorizes that companies obtain and maintain a competitive advantage by utilizing and developing valuable resources (Wernerfelt, 1984). Company resources include all assets, capabilities, company attributes, organizational processes, information, and company knowledge that enable companies to understand and implement effective strategies (Barney, 1991). The RBV theory becomes the foundation in understanding the effect of market orientation (O’Cass & Heirati, 2015) and customer engagement (Mamun et al., 2018) on innovation performance.

Innovation Performance

Performance is the company’s ability to achieve strategic objectives by interacting actions for competitive forces, managing internal resources, and adapting to changes in the external environment (Al-Ansari et al., 2013). The concept of innovation is the foundation for the company to stay focused on the market, a source of competitive progress, and economic growth (Buli, 2017). Favorable performance in innovation becomes a determinant for companies to remain competitive (Handayani & Handoyo, 2020; Padilha & Gomes, 2016). Innovation is related to performance, which shows the generation of activities to implement ideas,
processes, and products. Innovation performance reflects the company's efforts to achieve a successful innovation (Alegre & Chiva, 2008). Innovation performance is a construct with two different dimensions, namely product innovation and process innovation (Padilha & Gomes, 2016). Product innovation reflects the company's ability to introduce more new products than competitors and introduce new ideas (Wahyuni, 2019). Process innovation reflects the company's behavior to continually update work practices to improve service quality and productivity (Nasution et al., 2011).

The innovation performance referred to in this study refers to the company's ability to perform innovation. According to Falasca et al. (2017), innovation performance shows the company's ability to develop new products and create customer value through innovation. Improved company performance through innovation shows innovation performance (Weerawardena et al., 2014).

### Market Orientation

Market orientation refers to a company's strategy and operation to face and respond to changing market demands (Raju et al., 2011). The ability to develop market orientation interventions with other strategies to obtain higher returns shows market orientation (Boso et al., 2013). Market orientation as a company's resources can be transformed into outputs valued by customers (Mamun et al., 2018; Chen & Quester, 2006; Zhang & Duan, 2010). Market orientation determines innovation's performance as an achievement of modification and change in products and processes (Roach et al., 2014).

The purpose of the organization to transmit organizational values, including market-oriented values, is to encourage creativity to innovate (Padilha & Gomes, 2016). The company's efforts to produce much information about trends, speed in detecting changes in the business environment (Jaworski & Kohli, 1993) that might have an impact on the target market, and fast response to the actions of competitors who threaten the target market have a positive influence on the level of profit and return (Boso et al., 2013). The company's ability to understand and meet the needs of customer desires to offer superior customer value by collecting useful market intelligence, coordination of functions, communication, responsive actions on market intelligence gives the company an advantage in the speed of innovation (Zhang & Duan, 2010; O’Cass & Heirati, 2015). Thus, the first hypothesis proposed is as follows:

**H1:** Market orientation has a positive effect on the performance of product innovation and process innovation.

### Customer Engagement

Customer engagement is an essential concept for organizational success (Sashi, 2012). Customer engagement is an intangible asset that is principally related to company culture (Cambra-Fierro et al., 2013; Purba & Tan, 2018). Customer engagement refers to the mutual ability between sellers and buyers to share and exchange information (Youssef et al., 2018). With its interactive nature and ability to build communication between companies and individuals, social media involves potential customers to produce better products and services (Vivek et al., 2012). This study defines customer engagement as the ability to manage the relationships between a company and its customers to facilitate successful exchange relationships. The company's marketing actions affect the level of customer response. Implementation of marketing orientation such as building, developing, and maintaining relationships by generating customer intelligence enables the development of customer engagement in the delivery of shared values (Hapsari et al., 2017).

Market orientation makes an essential contribution to customer engagement (Javalgi et al., 2006). Market orientation directs the organization to produce market intelligence related to changing customer needs and maintaining long-term relationships to create superior customer value (Raju et al., 2011). Furthermore, an in-depth understanding of the concept of market orientation enables companies to expand and maintain connections, dialogue and good relations with customers to meet changes of existing customer needs, and potential ones (Mamun et al., 2018). Thus, the second hypothesis proposed is as follows:

**H2:** Market orientation has a positive effect on the level of customer engagement.

Marketing studies show that customer engagement refers to companies' ability to engage customers in meeting their dynamic needs to ensure that their customers are satisfied and loyal (Sashi, 2012; Youssef et al., 2018). Customer engagement contributes to making the company-customer relationship last in the long run (Cambra-Fierro et al., 2013). Customer engagement, as a process of interaction and two-way communication, enables companies to get their needs and expectations,
additional information, and knowledge. Customer engagement encourages customer participation in the delivery of value and the adoption of new ideas, processes, and products (Newby et al., 2014).

Customers who are actively involved and feel the benefits show higher loyalty than customers with low involvement. Loyalty to the company’s brand, word-of-mouth, and commitment as key indicators of customer engagement increases the opportunity to generate value for the company (Lin et al., 2010; Ayuso et al., 2011). Thus, the third hypothesis proposed is as follows:

H₃: Customer engagement has a positive effect on the performance of product innovation and process innovation.

Market orientation is defined as the ability of companies to build and develop existing resources to provide superior customer value (Fang et al., 2014). RBV theory explains companies’ ability to obtain, manage, and maintain valuable resources that will create a competitive advantage and its consequences with company performance (Barney, 1991; Clulow et al., 2007). Customer engagement shows the company’s ability to engage consumers to meet their dynamic needs and ensure that customer satisfaction and loyalty are achieved (Sashi, 2012). Market orientation significantly contributes to the social aspects of customer engagement, such as building connections, participation, and dialogue, as well as creating shared creations with their customers (Mamun et al., 2018). As the implementation of behavior marketing concepts, market orientation is adopted to build long-term beneficial relationships with customers, such as the intensity of communication, interaction, and dialogue (Javalgi et al., 2006). Thus, the fourth hypothesis proposed is as follows:

H₄: Customer engagement mediates the effect of market orientation on the performance of product innovation and process innovation.

3. RESEARCH METHOD
A cross-sectional study design was used in this study. Data collection was carried out using a structured interview method and questionnaire distribution. Manufacturing SMEs included in the list are manufacturing SMEs engaged in handicraft products, such as wood crafts and the textile industry totaling 561 manufacturing SMEs. Sampling was conducted using the Slovin formula with a sample size of 242 respondents.

The use of questionnaires as a research instrument was adopted from several previous research findings with a few modifications to suit Bali’s research context. All items are answered on a 5-point Likert scale. Market orientation practices refer to organizations’ ability to find, disseminate, and respond to market information to create superior customer value. Market orientation measurement scale consists of searching for information, responding to customer needs quickly, and reacting to changes in the environment for customer value creation. Measurement items are adapted from Jaworski and Kohli (1993), Chen and Quester (2006), and Zhang and Duan (2010). Customer engagement refers to the ability of companies to approach an intense, long-term relationship with customers. According to Lin et al. (2010) and Mamun et al. (2018), the scale of measuring customer engagement includes dialogue activities with customers, interwoven interactions, the ability to solve customer problems for value creation, connections, and interwoven relationships with customers. Innovation performance refers to the ability of companies to excel in product innovation and process innovation. Finally, the scale of innovation performance measurement adapts previous research covering innovation achievements in products, innovations in management, and modification of company administration processes by Padilha & Gomes (2016) and Falasca et al. (2017).

This type of research is explanatory research. Data analysis was conducted using variance-based structural equation modeling, or known as partial least square (SEM-PLS) with SmartPLS software, with the reason that the use of PLS to estimate path relationships in research models that use latent constructs with several indicators could maximize the explanation of variance in the dependent constructs of structural equation models (Mamun et al., 2018). In situations where the theory has not yet developed, and the theory is still limited to the structural relations between latent variables, the research objective is more exploratory than confirmation (Sholihin et al., 2011). Besides, this research used PLS, because it has a more exceptional ability to predict and understand the formation of individual constructs or latent variables, as well as the relationships of constructs with one another (Chin & Dibbern, 2010). Analysis of the findings for PLS modeling was done by following Hair et al. (2013) recommendations.
4. DATA ANALYSIS AND DISCUSSION

This study collected demographic characteristics data from manufacturing SMEs in Bali engaged in export products. Types of manufacturing SMEs are processed forest products and wood or handicraft products \( (n = 79, 33\% ) \); textile and apparel products \( (n = 163, 67\% ) \). Their average year of operation is more than 15 years \( (69\% ) \). The average number of employees is 5-19 \( (70\% ) \).

This study also briefly outlines the characteristics of research respondents, namely the SME owners or managers of the woodcraft and textile industries. The characteristics of the respondents include (1) age, (2) gender, and (3) the length of being a manager. Characteristics of respondents are seen from age, the length of being a manager or owner of between 31 to 40 years old of 44.44\% . Meanwhile, when viewed from gender, 62.63\% of the respondents were male. The dominance of women as SME owners/managers is motivated by an interest in earning income, internal motivation, environmental influences, life impulses, and family factors (Azmi, 2017).

Most respondents have been working for 11 - 15 years \( (32.38\% ) \). This means that the respondents have more experience in innovation capability, better ability to see market changes, and more ability to develop business and marketing techniques. The SmartPLS 3.0 analysis tool in this study produces two levels of model evaluation, namely (1) the construct measurement model with reflexive indicators to determine the validity of indicators and construct reliability, and (2) the model evaluation (Hair et al., 2014).

**Measurement Model**

The criteria used to test the validity and reliability of research data are presented in Table 1. For validity testing, construct indicators are tested using convergent validity. The construct indicators are declared “reliable” if outer loadings of all construct measurement items have a value of at least 0.70. However, for exploratory research that requires further research, the value of 0.40 is still acceptable (Mamun et al., 2018). Finally, the reliability of the construct is measured using Cronbach’s alpha and composite reliability. All indicators in this study have Cronbach's alpha values of above 0.70, indicating that all items in this study are “reliable.” Likewise, all indicators' composite reliability value must be above 0.70 (Sholihin et al., 2011).

<table>
<thead>
<tr>
<th>Factor</th>
<th>Item</th>
<th>Factor Loadings</th>
<th>Cronbach’s α</th>
<th>Composite reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market orientation (MO)</td>
<td>X1.1 My company is effectively developing the market intelligence process.</td>
<td>0.888</td>
<td>0.816</td>
<td>0.891</td>
</tr>
<tr>
<td></td>
<td>X1.2 My company has a high interest in the rapid response to customer needs.</td>
<td>0.904</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1.3 My company responds well to changes in the business environment.</td>
<td>0.772</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer engagement (CE)</td>
<td>X1.1 My company opens a dialogue with customers.</td>
<td>0.770</td>
<td>0.909</td>
<td>0.928</td>
</tr>
<tr>
<td></td>
<td>X1.2 There is an openness to customers.</td>
<td>0.852</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1.3 My company builds interactions with customers.</td>
<td>0.859</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1.4 Exchange ideas to solve customer problems</td>
<td>0.857</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1.5 Build togetherness to create customer value</td>
<td>0.726</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1.6 My company has a connection.</td>
<td>0.731</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1.7 Emotional ties with customers are tightly woven.</td>
<td>0.837</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation performance (IP)</td>
<td>Y2.1 Increase product compatibility with market demands</td>
<td>0.895</td>
<td>0.879</td>
<td>0.925</td>
</tr>
<tr>
<td></td>
<td>Y2.2 Increase management involvement</td>
<td>0.892</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y2.3 Improve the modification of the administrative process</td>
<td>0.905</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s data analysis.
All measurements used in this study use a 5-point Likert scale. Table 1 is a list of constructs, measurement items, loading results, Cronbach’s alpha, composite reliability used in this study. Table 1 shows the discriminant validity test on all indicators, and the results show that all indicator loadings have values of above 0.70. So, it can be said that the construct indicators meet the validity criteria. As shown in Table 1, using a threshold of 0.70, the study results show a Cronbach alpha value above 0.70, which means that all items used are reliable. The composite reliability shows values above the threshold of 0.70 for exploratory research, which means that the measurement items meet the reliability criteria.

This study uses a bootstrap method to test the significance of the effects and mediation of variables (Sholihin et al., 2011). Hypotheses testing each pathway of the influence of exogenous variables on endogenous variables is done using t-test and p-value, where the p-value is compared with α (5 percent). Overall, the hypothesis test results can be seen from the path coefficient, t-test, and p-value. If the p-value is smaller than 0.05, then the effect is declared “significant,” and vice versa (see Table 2).

Table 2. Summary of hypothesis test results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path coefficient</th>
<th>T-statistics</th>
<th>Significance</th>
<th>R-square</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1. MO → IP</td>
<td>0.435</td>
<td>5.576</td>
<td>0.000</td>
<td>0.612</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2. MO → CE</td>
<td>0.677</td>
<td>20.053</td>
<td>0.000</td>
<td>0.458</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3. CE → IP</td>
<td>0.419</td>
<td>5.501</td>
<td>0.000</td>
<td></td>
<td>Accepted</td>
</tr>
</tbody>
</table>

The mediating role of customer engagement

H4. MO → CE → IP | 0.284 | 5.222 | 0.000 |          | Partial mediation |

Remarks: MO=Market orientation; CE=customer engagement; IP=innovation performance

Source: Author’s data analysis.

Structural Model

This study uses a bootstrap method to test the significance of the effects and mediation of variables (Sholihin et al., 2011). Hypotheses testing each pathway of the influence of exogenous variables on endogenous variables is done using t-test and p-value, where the p-value is compared with α (5 percent). Overall, the results of the hypothesis test can be seen from the path coefficient, t-test, and p-value. If the p-value is smaller than 0.05, then the effect is declared “significant,” and vice versa (see Table 2).

Table 2 shows the results of the analysis. Hypothesis 1 (H1) states that market orientation (MO) has a positive effect on innovation performance. The results of the analysis show a coefficient value of 0.435, a statistical t-value of 5.576 >1.96, and a p-value < 0.05 (β=0.435; p<0.05), which means that market orientation (MO) has a significant positive effect on innovation performance. So, H1 is accepted.

Hypothesis 2 (H2) states that market orientation (MO) has a positive effect on customer engagement. The results of the analysis show a coefficient value of 0.677, a statistical t-value of 20.053 >1.96, and a p-value < 0.05 (β=0.677; p<0.05), which means that market orientation (MO) has a positive effect on customer engagement. So, H2 is accepted. Hypothesis 3 (H3) states that customer engagement has a positive effect on innovation performance. The results of the analysis show a coefficient value of 0.419, a statistical t-value of 5.501 >1.96, and a p-value < 0.000 (β=5.501; p<0.05), which means that market orientation has a positive effect on innovation performance. So, H3 is accepted. Finally, Hypothesis 4 (H4) states that customer engagement mediates the effect of market orientation on innovation performance. The analysis results show a positive and significant coefficient (β=0.284; p<0.05), which means that customer engagement partially mediates the relationship between market orientation and innovation performance.

Market orientation affects innovation performance. The path coefficient of the effect of market orientation on innovation performance is positive and significant. Market orientation is a cultural and behavioral aspect of being willing to collect market information (such as prices, products, customers, competitors, environmental changes, and regulations) and disseminate information throughout the organization to create superior value for customers. Various efforts to design processes, gather information and disseminate customer information, and monitor the level of a company’s commitment to serving the needs of current and potential customers
show the identity of market orientation behavior. This result indicates that companies with a tendency toward market orientation make a positive contribution to innovation performance by adopting new ideas, processes, and products. This finding is in line with the findings of the research conducted by Roach et al. (2014) which state that the efforts of an organization to collect relevant information, to acquire information, to disseminate of information among relevant users, and to utilize information among relevant users, and to utilize information to make decisions have a positive effect on the ability to innovate.

Market orientation has a positive effect on customer engagement. Market orientation has a vital role in the company’s ability to build customer-company interaction. Market orientation reflects the company’s ability to build strategies and operations to respond to changing market demands while increasing its efforts to build, maintain, and manage long-term customer relationships. This finding is in line with the finding of the research conducted by Mamun et al. (2018) which confirms that culture and behavior in understanding customer needs and wants can enhance a company’s ability to adapt to innovative approaches and build long-term intimate relationships with customers to create superior customer value. According to Javalgi et al. (2006), there is a significant relationship between market orientation and customer engagement. The market orientation path coefficient has a significant positive effect on customer engagement. This result indicates that the development of market intelligence effectively increases the ability to build long-term relationships with customers.

Customer engagement has a positive effect on innovation performance. Customer engagement refers to the company's ability to adopt innovative approaches and efforts to build intimate long-term connections with customers that enable customers to be more loyal to the company. Customer engagement covers three main bases of activities: First: companies must have the desire to open a dialogue with customers; Second: companies must be able to interact with customers to get the latest information related to the market; Third: companies must have the ability to create ideas and new products. The path coefficient of the effect of customer engagement on innovation performance is positive and significant. This result indicates the company’s ability to build long-term relationships with the customer in favor of positive product and management modifications in achieving superior performance and profitability. This finding is in line with the finding of the research conducted by Lin et al. (2010), which states that the use of favorable customer relationships to understand demand and create customer satisfaction leads organizations to develop ideas, systems, programs, products, and new services for an organization.

Customer engagement partially mediates the relationship between market orientation and innovation performance. Market orientation is a resource or company’s ability to understand and anticipate information needs and customer preferences that encourage the company to implement strategies to maintain a long-term relationship. Furthermore, as a marketing capability, customer involvement enables the company to interact and retain existing customers and enhance the company-client relationship to meet customer needs, thus contributing to developing innovation performance.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

Previously, research on the effect of market orientation, customer engagement on innovation performance received less attention. The current study tries to help fill the research gap and offer how market orientation and customer engagement contribute to the innovative performance of manufacturing SMEs in Bali. The results of this study show that market orientation has a significant positive effect on innovation performance, market orientation has a positive effect on customer engagement, customer engagement has a positive effect on innovation performance, and customer engagement partially mediates the relationship between market orientation and innovation performance.

This study contributes to existing strategic marketing studies in two main ways. First, this study suggests that customer engagement explains the mechanisms through which market-oriented practices can influence innovation performance. Market orientation is the culture and values that are followed in understanding customer desires to provide superior customer value. This will trigger the growth of information-seeking behavior and information utilization, which can increase the ability to engage customers in generating ideas, processes, and products. Second, high-level market orientation plays a crucial role in building long-term relationships with customers as a corporate marketing strategy orientation.

It is hoped that the results of this study will help increase managers’ insight and understanding of the
mechanisms of how market orientation and customer engagement can contribute to innovation performance in export-oriented SMEs. This study develops the RBV theory, which explains the company’s economic resources that can create competitive advantages (Barney, 1991).

This study has several limitations that should be considered in future research. First, this study only uses manufacturing SMEs engaged in wood and textiles as the research sample, so the results of this study, of course, cannot be generalized to all companies. Future research is expected to use all manufacturing companies registered with the Ministry of Trade and Industry to detect the characteristics of companies in the manufacturing sector that can influence regional economic growth. Second, developing a market orientation is seen as a long-term endeavor that does not always yield immediate benefits. Therefore, it is necessary to research the effects of market orientation from another perspective.

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