

Effect of Market Orientation and Competence of Knowledge on Innovation

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Abstract—This study aims to examine the role of market orientation and competencies in enhancing innovation in the context of small and medium enterprises (SMEs) in Bali. Seventy (70) data were generated to conduct surveys and data were analyzed with Partial Least Square (PLS). The findings show that market orientation has a significant positive effect on knowledge competence. Market orientation influences innovation through mediating knowledge competencies. Because market orientation can improve knowledge competencies, it is advisable for SME managers to develop and implement appropriate marketing strategies. Regarding the results of research on the relationship between market orientation and innovation that have insignificant influence, the relationship model of market orientation and innovation and the development of research models will be further examined in the future.

Keywords—market orientation; competence of knowledge; innovation; performance

I. INTRODUCTION

Improving environmental turbulence, competition, changes, and uncertainty is forcing companies to pay more attention on innovation. In this case, the question of how companies can improve innovation is a question of practitioners and academics [1]. Studies show that market orientation factors [2,3] and knowledge competencies [4,5] are able to create innovation.

Market orientation is an organizational culture that is able to create certain behaviors needed to create customer value effectively and superiorly [6]. A person's market orientation can be seen from the level of orientation of the customer, the competitor, and the interfunctional coordination behavior [7]. Although research has been conducted on the role of market orientation in the marketing textbooks, the synthesis of findings to better understand this relationship is mostly done in large companies [5]. Therefore, this study tries to propose a new model by adding the concept of knowledge competence in the model in the context of SMEs. It is hoped that this study provides a more meaningful understanding of the mechanism of market orientation and knowledge competencies affecting the ability to innovate.

No research has explored the effects of market orientation and competency of knowledge on innovation. Therefore, the aim of this study is to empirically examine the relationship of

market orientation and competency of knowledge to innovation, and to expand the literature on SME marketing and innovation in Indonesia.

In the next section, a literature review is based on previous research studies, and proposes several sets of hypotheses related to the relationship of the concept of market orientation, knowledge competence, and innovation. Then a conceptual framework is presented and a research method is introduced which includes information about research design, samples, measurement of research, data. The next section examines models in SMEs in Bali, Indonesia. The last section discusses findings, research limitations, and proposes future research suggestions.

A. Literature Review and Hypotheses Development

1) *Market orientation*: Understanding market orientation from a cultural, customer, and behavioral perspective is the implementation of the marketing concept. The main objective of market orientation is to obtain information on customers and competitors in the target market, in an effort to create new products that are able to meet customer expectations [8]. Market-oriented behavior by being willing and trying to gather market-related information (such as information about desired prices, products, customers, competitors, regulations, suppliers, and changes in the business environment), and then there is information dissemination throughout the organization to be evidence of market orientation [9].

2) *Knowledge competence*: Competence shows a range of individual capacities and attitudes related to knowledge and skills embodied in organizational skills to achieve competitive advantage [10,11]. The knowledge competency process focuses on the process of searching, analyzing, transforming, and disseminating information related to markets and competitors with the aim of developing strategies and implementation [12].

3) *Innovation*: Innovation is the capacity of an organization to introduce and implement new ideas, several products, processes, and knowledge in an organization. The tendency of organizations to innovate can be seen from the company's indication of being involved in new ideas, novelty,

creative processes, experiments that will create new products / services [13].

4) *Market orientation and innovation*: Many studies emphasize the importance of market orientation to increase innovation [2]. Therefore, an organization that is committed to market-oriented can increase innovation. Market-oriented, highly committed organizations tend to be able to innovate, by monitoring and looking for relevant customer and competitor information, so that market-based innovation is successful [14].

H1. Market orientation positively influences innovation.

5) *Market orientation and knowledge competence*: Market orientation is related to cultural norms that lead to market information seeking [3]. Market orientation allows companies to obtain information sources that attract companies, triggering the process of transforming information into knowledge, so that knowledge competencies tend to increase [15,16]. Thus it is hypothesized:

H2. Market orientation positively influences knowledge competence.

6) *Knowledge and innovation competence*: Knowledge competency as a series of company efforts to find, produce and utilize information into new knowledge plays an important role in organizational innovation activities [4]. Companies that are able to utilize knowledge competencies tend to be able to develop market-based innovations [5]. Thus the following hypothesis is proposed:

H3. Knowledge competence has a significant influence on innovation.

B. Conceptual Framework

This study proposes three hypotheses. The conceptual framework in Figure 1 comes from the literature on market orientation, knowledge competence, and innovation [2,11,14].

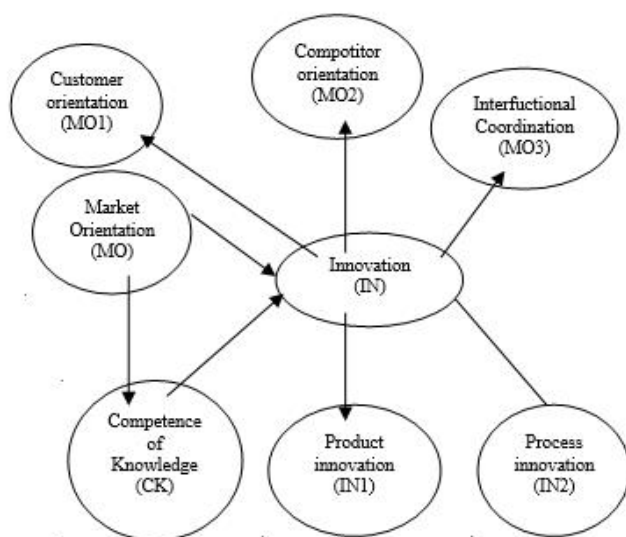


Fig. 1. Conceptual framework.

II. METHOD

A. Research Design

The research design with a quantitative approach was used in this study. By quantitative design, research instruments are able to measure research variables, so that further data can be analyzed based on statistical procedures [17,18].

B. Population and Samples

The research population was all textile industry SMEs in Bali of 125 SMEs [19]. The sampling technique uses the formula of Kreijcie-Morgan quoted from Sanusi, i.e. the 70 of managers or owners of SMEs that have been operating for at least three years [2]. The research location is in the Province of Bali, Indonesia.

III. RESULT AND DISCUSSION

A. Measurement

Descriptive statistical analysis is used to describe the level of perception, market orientation behavior, knowledge competence, and innovation ability of SME managers, by calculating the average trend. Market orientation is measured by three dimensions, namely customer orientation dimensions, competitor orientation, and interfunctional coordination. The results show that SME managers have a level of market orientation behavior with high customer orientation dimensions (4.13), moderate competitor orientation (2.86), and high interfunctional coordination (4.22). Furthermore, the SME manager's perception level on the concept of competence has a high average value (4.10) which shows that respondents agree that they have the ability to process customer knowledge, create good market knowledge, and the ability to transform competitor information into new knowledge. Innovation is measured by the dimensions of product innovation and process innovation. Descriptive analysis results show the average perception of the dimensions of high product innovation (4.03), and the dimensions of high process innovation (3.99).

B. Findings

Evaluation of the measurement model (outer model) using PLS shows all coefficients above 0.7 ensure that all construct indicators are valid (Table I).

TABLE I. OUTER LOADING COEFFICIENT INDICATOR

Notation	Coefficient	Sample Mean	T statistics
MO1.1 \leftarrow MO1	0.852	0.846	13.024
MO1.2 \leftarrow MO1	0.835	0.835	19.255
MO1.3 \leftarrow MO1	0.833	0.832	19.832
MO1.4 \leftarrow MO1	0.797	0.792	11.896
MO2.1 \leftarrow MO2	0.881	0.881	36.536
MO2.2 \leftarrow MO2	0.884	0.880	32.280
MO2.3 \leftarrow MO2	0.896	0.896	41.127
MO3.1 \leftarrow MO3	0.834	0.835	17.518
MO3.2 \leftarrow MO3	0.861	0.863	17.845
MO3.3 \leftarrow MO3	0.810	0.807	14.404
CK1 \leftarrow CK	0.773	0.771	13.106
CK2 \leftarrow CK	0.854	0.855	21.945
CK3 \leftarrow CK	0.874	0.876	25.726
IN1.1 \leftarrow IN1	0.822	0.824	15.500

Table 1. Cont.

IN1.2 \leftarrow IN1	0.819	0.824	31.220
IN1.3 \leftarrow IN1	0.780	0.771	8.309
IN1.4 \leftarrow IN1	0.851	0.849	18.312
IN2.1 \leftarrow IN2	0.827	0.826	16.907
IN2.2 \leftarrow IN2	0.801	0.800	15.574
IN2.3 \leftarrow IN2	0.663	0.666	9.321
IN2.4 \leftarrow IN2	0.811	0.805	11.091

Furthermore, the analysis of the structural model (inner model) of the PLS program presents the relationships between variables. Based on the results of data analysis, it was found that there was a significant positive influence of market orientation on knowledge competence ($\beta = 0.438$, $p < 0.05$). There is a significant positive influence on the competence of knowledge on innovation ($\beta = 0.480$, $p < 0.05$). This finding provides an understanding, that if the managers of textile industry SMEs want to strengthen their innovation capabilities, then the competency of knowledge related to the market must be increased [4,5]. That is, if market-oriented behavior is improved, there is a tendency for knowledge competencies to increase. Subsequent findings revealed that the relationship between market orientation and innovation was found to be positive but insignificant ($\beta = 0.109$, $p = 2.691$ 0.05). The reasons for the insignificance of market orientation relations to innovation are: first, a market-oriented company that always follows the customer's wishes and fails to predict the needs of potential customers making innovation not develop. Second, the product is made only based on orders according to consumer desires, so that innovation does not develop. Courage to launch new products according to customer information, raises a high level of innovation.

IV. CONCLUSION

From the descriptive analysis, it was obtained the results of the average perception and behavior related to market orientation, knowledge competence, and innovation with high average values. So, in order to strengthen the ability of innovation, managers of textile industry SMEs are advised to strengthen knowledge competencies related to markets such as the intensity of the customer knowledge process, the process of knowledge about competitors, and the marketing interface; and to strengthen knowledge competencies, it is recommended to improve market-oriented behaviors such as understanding customers, listening to customers, finding customer information, communication with high intensity, and coordinating functions within the organization.

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