



The Effect of Market Orientation and Entrepreneurial Leadership on Performance Innovation with Organizational Ambidexterity as an Intervention based on Technology 4.0

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Abstract- This study aims to analyze the effect of market orientation and entrepreneurial leadership on the innovation performance of SMEs. The method of data collection was carried out using a questionnaire to 50 respondents of UKM Kraf in Samarinda and Tenggarong for then the data was processed and analyzed using Structural Equation Modeling-Partial Least Square. The results of the analysis in this study indicate that market orientation has a positive and significant effect on the innovation performance of SMEs, market orientation has a positive and significant effect on organizational ambidexterity, entrepreneurial leadership has a positive and significant effect on organizational ambidexterity, market orientation has a positive and significant effect on product innovation, but not significant impact on innovation performance. Organizational ambidexterity as an intervening has a positive and significant impact on the innovation performance of SMEs.

Keywords— Organizational Ambidexterity, Innovation Performance, Entrepreneurial Leadership, Kraft SME's.

1 INTRODUCTION

One of the indicators of national development is the level of economic growth. Various efforts to improve the economic and social development of the community have been carried out, one of which is by empowering the SME sector (Small and Medium Enterprises). This is considered to reduce the unemployment rate. The more active SMEs, the impact on a strong and crisis-resistant economy [1]. Limited capital, human resources, weak market penetration, market access are some of the inhibiting factors for the development of SMEs, business components [2], and also transfer of knowledge and innovation [3].

The long-term success of an organization lies in its ability to exploit its capabilities and also explore new competencies (organizational ambidexterity). Exploitation focuses on improving and reusing a product or process with existing resources. While the exploration of organizations and their managers about freedom of thought and radical

opening of organizational responsibilities or what is radical innovation [4]. Ambidexterity exploits opportunities and potential for rapid organizational change [5]. Ambidexterity tries to seek innovation at the organizational, team level and also at the level of individual workers who must explore and exploit in order to achieve organizational goals. Leadership is said to be a predictor that affects organizational innovation [6]. Ambidexterity is a technique of how an organization can take advantage of its own exploratory and exploitative activities based on dynamic capabilities that are interrelated between internal and external knowledge processes in organizational reform [7]. The ultimate goal of organizational ambidexterity is the competitive advantage of an organization that is able to improve its performance in the future

The ambidextrous competence of managers and employees in SMEs can balance the process of exploration and exploitation [8]. The ambidextrous competence of managers and employees in SMEs can balance the process of exploration and exploitation [9]. Decision-making skills, knowledge transfer skills, self-introspection, trustworthiness, skills to find new opportunities are some of the ambidextrous individual competencies. In addition there are other hybrid competencies media competence, consensus ability, ability to motivate oneself, creativity, which are categorized as hybrid interdisciplinary exploration skills [10].

Entrepreneurial leadership (EL) is an activity that encourages organizational members to think and act outside the box to enhance team creativity. Thinking skills, knowledge, and experience as well as having an entrepreneurial mentality that is action-oriented and focused on solving problems in a unique way that a person has are identified as being able to give birth to creativity in the midst of radical changes that occur in organizations. EL can be categorized as an innovation capability. Innovation capability is an ability that continuously creates and

innovates knowledge [11], skills, and ideas into new products development (NPD), processes, and new systems that are of value for the benefit of the company and its stakeholders in order to be able to compete with competitors more resources [12].

New product development (NPD) is a very important stage in the sustainability of a business organization [13]. One of the organization's business strategies is to design the NPD process according to the optimal allocation of resources [14] and collaborate with existing innovation sources into user-based social product development [15], and develop by generating open innovations (OI) [16] according to environment issue. Open innovation emphasizes engagement with various external resources [17], such as customers, as well as universities, research centers, and competitors [18].

Several indicators in SME innovation capability are focusing on consumer desires [19], able to cooperate and collaborate with other companies (OI) [20,21], have a dynamic market structure and competitiveness [22], protection of patents and trademark rights [23], technological advances [24], external recognition and financial incentives (subsidies) either from the government or from external parties, rapid and precise improvement and value of intrapreneurial behaviour [25,26] employees, improving skills and elaboration of knowledge [27,28]. Size of the organization and investment for research, investment capital, and constantly promoting innovation based to IT [29,30].

Business competition is fiercely driven by rapidly changing technology by requiring companies to exploit and explore their IT resources to provide IT-based competitive advantages [31], called IT ambidexterity. IT ambidexterity is the ability to continuously improve existing technology practices and introduce innovative new technology solutions in a company [32]. IT ambidexterity is the ability to carry out a strategy [33] of continuous improvement of existing technology practices and introduce innovative new technology solutions in a company.

Technology 4.0/ IT resources/ IT Capability serve as facilitators in the design process, and the empowerment of IT facilities can positively reduce the average operational cycle time, performance of new products on the market and positively affect the speed of NPD [34]. The indicators for IT that are used are as an increase in IT skills of employees, enterprise resources planning, use of e-commerce, use of web sites in product marketing [35].

Product innovation affects marketing performance [36,37]. Product innovation affects marketing performance [38,39]. The company is committed to product innovation, creating sustainable product value that focuses on its users, in other words it must be market-oriented [40]. Marketing performance affects market orientation and product innovation [41]. On the other hand, product innovation and market orientation have a positive and significant effect on organizational ambidexterity [42].

East Kalimantan, especially Samarinda City, has specific handicraft products such as handicrafts from bamboo, rattan, beads, sticks and several other types of crafts. The handicraft industry can become a regional potential product if it is developed seriously, because the products have regional characteristics in terms of their natural resources. The problem that exists in craft SMEs in Samarinda is the lack of human resources who have an entrepreneurial spirit, are able to think and act out of the box and develop new products design that are more unique, attractive and in accordance with the target market, which has an impact on the progress of SME product results. which is less significant.

This study aims to analyze the effect of market orientation on the innovation performance of SMEs, analyze the effect of entrepreneurial leadership on the innovation performance of SMEs, analyze the effect of market orientation on the ambidexterity of SMEs as an intervention on the innovation performance of SMEs, and analyze the influence of entrepreneurial leadership on the innovation performance of SMEs.

2 LITERATURE REVIEW, RESEARCH FRAMEWORK AND HYPOTHESES DEVELOPMENT

This study collects literature on market orientation, entrepreneurial leadership, organizational ambidexterity, IT infrastructure and innovation to understand and develop the interpretations and dimensions of previous research.

2.1 Market Orientation

Market orientation (MO) is a perspective to create the highest value for customer needs and desires as seen from the company's processes and activities. Market orientation facilitates the distribution of market information, and makes the basis for companies to allocate/invest resources in the production process as well as foster a culture that affects the utilization of resources between functional units in improving collaboration, and coordination.

Market orientation is divided into proactive market orientation and responsive market orientation. Responsive and proactive market orientations differ in the distribution of attention to a set of strategic issues and answers reflected in the pattern of resource allocation. Companies with a responsive market orientation allocate resources for strategic activities in helping companies to deal with today's competitive threats. Proactive market orientation, focusing on issues such as future competition and creating new market opportunities.

Market orientation and firm performance have an influencing relationship. Indicator in market orientation include: customer orientation, competitor capabilities, impact on environmental changes [43,43], customer and competitor correlation, knowledge sharing in one division, resource adaptation, production efficiency [44].

2.2 Entrepreneurial Leadership

Entrepreneurial leadership (EL) is an action-oriented entrepreneurial mentality and problem solving by

encouraging group members to think and act outside the box. The innovative capacity [45] of an activity depends on the capabilities of an entrepreneurial leader as well as the level of creativity of their team [39]. The indicators used in EL include: encouraging thinking out of the box, creating renewal [46], adapting to change, having resources in implementing change, oriented to action and problem solving [47], be able to produce creativity and skills [48].

2.3 Organizational ambidexterity

Organizational ambidexterity (OA) is defined as an organization's agility in taking advantage of opportunities [49] in exploratory activities (radical and focused on creative and innovative aspects) and exploitative innovation (incremental and focused on existing markets and users) [50]. Indicators to measure organizational ambidexterity consist of the quality of human resources, capital strength, business networks, sales mechanisms, and the level of competition [51]. Indicators on organizational ambidexterity are the existence of new product development, the development of new processes [52], the existence of research and product development and management, the existence of a creative and innovative atmosphere, and building cooperation with external parties.

2.4 Performance innovation

Performance innovation (IP) is the use of innovative ideas or creativity as inputs in improving products, processes, and procedures, with significant outputs, usability, and performance of products and services. The indicators used to translate innovation performance include: quickly generating new ideas, quickly solving existing problems, quickly processing the production of a new product, quickly producing new product design developments, quickly launching new products [53].

2.5 Hypotheses Development

From the literature study above, several hypotheses were compiled which later became the conceptual framework of this research. Some of these hypotheses are:

- H1 : Market orientation (OP) has a positive effect on Organization ambidexterity (OA)
- H2 : Market orientation (OP) has a positive effect on the innovation performance (IP) of SMEs
- H3 : Entrepreneurial leadership (EL) has a positive effect on Organization ambidexterity (OA)
- H4 : Entrepreneurial leadership (EL) has a positive effect on the innovation performance (IP) of SMEs
- H5 : Organization Ambidexterity (OA) has a positive effect on the innovation performance (IP) of SMEs

3 METHOD

3.1 Data collection and sample analysis

In the process of proving the research hypothesis, the questionnaire data was collected by 50 respondents of handicraft SMEs in the city of Samarinda and Kutai Kartanegara Regency, East Kalimantan Province. The questionnaire was conducted by filling in the google form to facilitate data collection. The measurement scale used is a Likert scale of 1 (very unimportant), 2 (not important), 3 (neutral), 4 (important) and 5 (very important). The collected data is then tested using SEM PLS 3 to measure outer loadings, reliability and validity, discriminatory validity, collinearity statistics, then bootstrapping is also calculated to assess the level of significance, r square and adjusted r square, f square, outer loading and outer weight.

3.2 Measurement

The structure of the model in this study includes five latent variables consisting of two exogenous latent variables, namely market orientation and entrepreneurial leadership, one intervening variable, namely organizational ambidexterity and one endogenous latent variable, namely innovation performance.

For exogenous latent variables, market orientation consists of seven indicators, namely customer orientation (OP1), competitor capabilities (OP2), impact on environmental changes (OP3), customer and competitor correlation (OP4), knowledge sharing in one division (OP5), resource adaptation (OP6), production efficiency (OP7). Meanwhile, the latent variable exogenous Entrepreneurial leadership (EL) consists of six indicators, namely Encouraging thinking out of the box (EL1), creating renewal (EL2), adapting to change (EL3), having resources in implementing change (EL4), oriented to action. and problem solving (EL5), be able to produce creativity and skills (EL6).

The latent variable which also acts as a mediator is Organizational Ambidexterity with six indicators, namely the existence of new process and new product development (OA1), enterprise resources planning (skill and knowledge employee, material, technology, etc) (OA2), renewable R&D about NPD (OA3), the existence of a creative and innovative atmosphere (OA4), and building cooperation with external parties (OA 5) and availability of technology 4.0 and marketing resources (e-commerce and website marketing) for innovation (OA6).

The exogenous latent variable is innovation performance, which has five indicators, namely quickly generating new ideas (IP1), quickly solving existing problems (IP2), quickly processing the production of a new product (IP3), quickly producing new product design developments (IP4), quickly launching new products (IP5).

4 RESULT AND DISCUSSION

This study uses the Structural Equation Model (SEM) Partial Least Square (PLS) data analysis method using the SmartPLS 3 software tool. The stages of data analysis are carried out in three stages, namely the external model, the internal model, and hypothesis testing.

4.1 Measurement

Before testing the hypothesis, the validity test is carried out first to show the level of validity of each instrument by looking at the values of convergent validity and discriminant validity.

4.1.1. Convergen Validity

In validity testing, each parameter indicator will be declared valid if the values of all variables have a loading vector value > 0.70. However, if there are still <0.70 then the indicator that has a low value is discarded and tested for validity again. From the results of testing the data, it turns out that the loading factor value of all variables is > 0.7 so that all indicators in the variables are said to be valid, and the loading factor value can be seen in Fig.1.

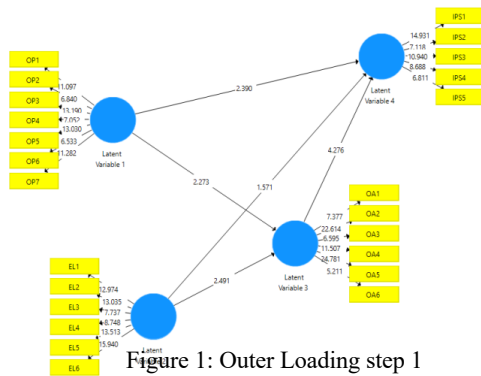


Figure 1: Outer Loading step 1
Source: primary data (processed)

4.1.2. Discriminant Validity.

Measurement of discriminant validity by analyzing the cross loading value and the average variance extracted (AVE) value. The AVE value generated by each variable used must be > 0.5 in order to be said to be eligible.

From analysis of SEM PLS 3, we obtain the AVE value of the Market Orientation variable = 0.675, Entrepreneurial Leadership variable value = 0.669, Organization Ambidexterity variable = 0.704 and innovation performance = 0.612. It means that each variable has good discriminant validity.

4.1.3. Reliability Test Analysis

Reliability measurement will explain the level of accuracy of the consistency of respondents' answers in answering the questions studied. researched issue. The reliability measurements used are:

1. Composite Reliability, intended to test the reliability value of variable indicators, and a construct is said to be reliable if the composite reliability value is > 0.7. From composite reliability result, all of variable are

reliable (OP = 0.935; EL= 0.924; OA=0.934; IP= 0.887))

2. Cronbach's Alpha test. Reliability test with Cronbach's Alpha value meets the variable assessment criteria (reliable) if the value is > 0.7 for each variable, and from cronbach's alpha result, all of variable are reliable (OP = 0.919; EL= 0.902; OA=0.915; IP= 0.841).

4.2 Direct Effect Bootstrapping Test

The direct effect bootstrapping test was conducted to test whether there was a direct effect of exogenous variables on endogenous variables. Decision making is taken if the t-statistic value > t-table 1.960 and the p-value < sig. 0.05. If it is in accordance with the t-statistic or p-value requirements, then there is a positive and significant effect of exogenous variables on endogenous variables, and otherwise, there is no effect.

The result of bootstrapping test can be seen in Table 3. Based on Table 3, the results of the direct effect bootstrapping test and Ho analysis can be seen in table 1

Table 1: Result of boothstrapping total effect

	StDev	t-stat	p-value	Analysis Ho
OP-> X3 OA	0.195	2.273	0.023	accepted
OP-> Y IP	0.201	4.091	0.000	accepted
X2EL-> X3 OA	0.183	2.491	0.013	accepted
X2EL-> Y IP	0.200	0.059	0.953	rejected
X3 OA -> Y IP	0.156	4.276	0.000	accepted

Source: primary data (processed)

4.2.1. Path coefficient test.

Based on the inner model scheme, it is explained that the greatest influence is shown in the influence of the organizational variable ambidexterity on organizational ambidexterity with a value of 4.276. Then the second biggest influence is the influence of the entrepreneurial leadership variable on organizational ambidexterity with a value of 2,491. The third biggest influence is the effect of market orientation on innovation performance of 2,390, and market orientation on organizational ambidexterity of 2,273, while entrepreneurial leadership on innovation performance is 1,571. Based on the results of the description, it can be concluded that the entire model in this variable has a positive path coefficient value. It can be seen because the greater the path coefficient value, the stronger the influence or relationship between the independent variable and the dependent variable.

5 CONCLUSION

This study found that market orientation has a positive and significant effect on organizational ambidexterity.

Entrepreneurial leadership has a positive and significant effect on organizational ambidexterity.

Organizational ambidexterity has a positive and significant effect on innovation performance. Market orientation has a positive and significant effect on innovation performance. However, the relationship between entrepreneurial leadership and organizational ambidexterity of innovation performance does not have a significant impact.

In this study, it only focused on a small number of target respondents for handicraft SMEs in East Kalimantan. Respondents only consisted of 50 craftsmen from the city of Samarinda and the city of Tenggarong sub-district. From this research can contribute knowledge and experience about the importance of factors supporting the innovation performance of SMEs to be improved.

Suggestions for business people (SMEs), to continue to provide innovation and even open innovation with related parties, such as the triple helix (institutions, external parties, and the government) so that SMEs can continue to work better in national and international markets

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