

Organizational Performance through Organizational Creativity and Open Innovation in Small and Medium Enterprises (SMEs)

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Abstract—Batik Tulis is a type of batik whose manufacturing process is done manually written by hand. One of the producers of Batik Tulis in Indonesia is on the island of Madura. Research on Batik Madura Small Medium Enterprises (SMEs) is considered interesting because Batik Madura is an element of local wisdom that still has the potential to be developed. Based on information from one of the Batik Tulis Madura SMEs activists, it is known that all batik producers in Madura use traditional writing methods, and none use printing techniques. This research constructs a model that explains the organizational performance of SMEs, as well as its relation to organizational creativity and open innovation. This research is descriptive research that describes events in the object under study, and answers to these events. This research examines objects in a specific period, so the answers to the problems in this study are not necessarily relevant in the future. The variables that will become the conceptual model in this study include organizational performance, open innovation, and organizational creativity. The SMEs that are the object of this research is the Batik Tulis SMEs located on Madura Island, East Java. The results of this model can be used as a basis for consideration in determining strategies to improve organizational performance, especially Batik Tulis Madura SMEs.

Index Terms—Open innovation, organizational creativity, organizational performance, Small Medium Enterprises (SMEs)

I. INTRODUCTION

In Indonesia, batik has many motifs, patterns, and colors that have different philosophies in each producing region. Batik Tulis is a traditional Indonesian cloth that has been recognized by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) since 2009 as an Intangible Cultural Heritage of Humanity [1]. The characteristic feature of Batik Tulis that differentiates it from other types of cloth is the process of dyeing the cloth. The dyeing process is done traditionally using the resist technique. Once the design is drawn onto the cloth, certain areas are covered with lines and dots of hot wax which prevent absorption of the dye. Areas that are not covered with hot wax will be given a certain color. The hot wax is then removed by immersing the cloth in boiling water. To give other colors, the process of coating the design with hot wax, dyeing the fabric, and removing the hot wax is repeated [2]. One of the producers of Batik Tulis in Indonesia is on the island of Madura. Batik Madura certainly has characteristics that are different from other batiks. Batik

Madura motifs use many flower and leaf motifs and use lots of bright and bold colors, such as red, yellow, and green [3]. There are many batik centers in Madura, such as the Tanjung Bumi batik center in Bangkalan, the Batik Madura center in Banyumas, Klampar, Pamekasan, and the Batik Madura center in Pakandangan, Sumenep [3].

Research on Batik Madura Small Medium Enterprises (SMEs) is considered interesting because Batik Madura is an element of local wisdom that still has the potential to be developed. The number of batik SMEs on Madura Island tends to increase every year. Based on data from the Office of Cooperatives and SMEs, the average growth of batik SMEs is 0.04% per year out of a total of 7,080 business units [4]. Madura consists of four districts, namely Bangkalan Regency, Sampang Regency, Pamekasan Regency, and Sumenep Regency. Competition between small and medium entrepreneurs of batik craftsmen in Madura, especially in Pamekasan Regency, is getting tougher, therefore, small and medium enterprises are required to be more creative and innovative in dealing with their competitors [5]. Based on information from one of the Batik Tulis Madura SMEs activists, it is known that all batik producers in Madura use traditional writing methods, and none use printing techniques. If a batik pattern is made using the printing method, then it cannot be called batik. This is because the definition of batik is that there must be the use of “malam” as a color barrier. The price of Madura written batik can be said to be quite competitive because the price is low compared to written batik from other regions. This is because the production method is not carried out all at once under one roof but involves various colleagues or partners in its production. One sheet of written batik cloth can involve various parties, such as cloth manufacturers, partners who do canting batik, partners who do batik coloring, and tailors.

However, the export value of Indonesian batik has declined in recent years. Based on data from the Ministry of Industry, batik exports were recorded at US\$ 803.3 million weighing 35.2 million tons in 2018. The export value of batik decreased 3.37% to US\$ 776.2 million in 2019. Likewise, the export volume decreased 7.6% to 32.5 million tons. In the following year, the export value of batik from Indonesia again decreased by 31.3% to US\$ 532.7 million. The export volume of batik decreased by 28.8% to 23.1 million tons. Meanwhile, the export value of batik was recorded at US\$ 157.84 million until the first quarter of 2021. The volume of batik exported reached 6.64 million tons in that period [6]. Based on the results of an interview with one of the resource persons, the Batik Tulis Madura SMEs activist who is domiciled in Bangkalan Regency, namely Batik Peri Kecil, said that since

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COVID-19 hit, many batik makers have changed professions. This is because many transactions that occur in Bangkalan Regency are still carried out in person, and because of COVID-19, people tend to stay at home. Batik Peri Kecil also experienced the same condition, they stopped operating for about two years due to COVID-19. They just reopened in August 2022, and currently the transactions that occur are still minimal and the income generated is not significant.

The decline in the export value of Batik can be seen as a decrease in the performance of Batik SMEs in Indonesia. Organizational performance is a broad concept that includes what a company produces or the services it provides. In other words, it refers to how the mission, tasks, and activities of the organization are carried out and in quality [7]. Organizational performance can be identified through financial conditions and ability to produce goods and services, namely operational performance [8]. One way to improve organizational performance is by carrying out open innovation [8]. Open innovation is playing an increasingly important role in the innovative development of SMEs [9]. Innovation is the most important source of competitive advantage, because it can produce new products that better meet customer needs, can improve the quality of existing products, or can reduce production costs for products requested by customers [10].

In order for an organization to be innovative, making organizational creativity an essential capability is needed in order to compete with competitors [11]. Organizational creativity has a subjective role in enhancing entrepreneurial capabilities. In other words, the organizational performance of a business can be influenced by the creativity of the organization [12]. Thus, it can be assumed that the decline in the volume of batik exports in Indonesia is due, in part, to the performance of batik industry organizations in Indonesia. Innovation performance can also be increased through organizational creativity and open innovation. Therefore, a review of organizational performance through organizational creativity and open innovation needs to be done in order to improve the performance of the batik industry in Madura.

This paper is structured into 5 sections. The first section is the introduction that discusses the condition of the object and the research background. The second section is a literature review of previous research on the variables in this study. The third section explains the research methodology and variables in this study. The fourth section is the result and discussion of this research and followed by conclusions and suggestions for further research in the fifth section.

II. LITERATURE

A. Organizational Performance

Organizational performance is a broad concept that includes what a company produces or the services it provides. In other words, it refers to how the mission, tasks, and activities of the organization are carried out and in quality [13]. Evaluation of organizational performance is a matter of great concern to the business and academic community, and various books and articles have been published on this subject. Performance evaluation is an effective and important measure for resource management because it not only ensures that the

organization's mission is achieved with optimal performance, but also can know that the interests of employees and society are met [7]. Organizational performance can be measured through two aspects, namely operational performance and financial performance [14]. Operational performance can be measured through aspects that describe internal conditions such as product, quality, effectiveness, efficiency, and productivity. The financial performance can be measured through profitability, return on investment and stock prices [8].

B. Open Innovation

Open innovation generally means the relationship between conducting independent R&D activities and the tendency to use external knowledge resources [9]. Open innovation refers to the inflow and outflow of knowledge activity carried out by organizations to accelerate internal innovation, expand markets, and use external innovation. Open innovation describes how ideas can be obtained from internal and external parts of the organization, even including from the market [8]. Open innovation is always open to the latest industry and market trends, so that the resulting ideas are desirable and acceptable to the market [15]. In addition, open innovation consists of inbound, namely the identification, selection, utilization, and internalization of new ideas that flow to the company from the external environment, and outbound, namely the commercialization of ideas developed internally to the company's external environment [16].

C. Organizational Creativity

Organizations need creativity to survive in an environment that is not always stable [17]. Organizational creativity is an essential ability in order to compete with competitors [11]. Creativity is rooted in the intellectual operations of individuals that are shared within the organizational environment. Creativity is the production of new and useful ideas. When these ideas are shared and validated as useful for social groups, such as companies, individual creativity becomes organizational creativity [12]. Organizational creativity is manifested in the creation of value, is often essential for the emergence of innovations in products, services, ideas and procedures, and arises when individuals work together in complex social contexts [12]. Those that can influence organizational creativity are individual creativity, group creativity, internal organization environment, and knowledge creation [18].

III. PROPOSED METHOD

This study uses a quantitative approach to data processing which is processed using statistical methods. This research is descriptive research that describes events in the object under study, and answers to these events. This research examines objects in a specific period, so the answers to the problems in this study are not necessarily relevant in the future. The variables that will become the conceptual model in this study include organizational performance, open innovation, and organizational creativity. Table 1 shows the definition of each variable that will be used in this study.

TABLE I: DEFINITION OF EACH VARIABLES

| Variable | Definition |
|----------------------------|---|
| Open Innovation | The relationship between conducting independent R&D activities and the tendency to use external knowledge resources to accelerate internal innovation and use external innovation [8, 9]. |
| Organizational Creativity | The production of new and useful ideas that are shared and validated as useful for social groups, such as companies, and individual creativity [12]. |
| Organizational Performance | A broad concept that includes what a company produces or the services it provides. In other words, it refers to how the mission, tasks, and activities of the organization are carried out and in a quality [13]. |

The SMEs that are the object of this research are the Batik Tulis SMEs located on Madura Island, East Java. Sources of research data include primary data and secondary data. Primary data was obtained from a survey conducted by distributing questionnaires to Batik Tulis SMEs in Madura and conducting interviews with stakeholders with certain criteria. As for the secondary data obtained through the internet and literature studies.

IV. RESULT AND DISCUSSION

Based on the literature study conducted, a hypothesis was obtained regarding the relationship between variables. The hypothesis is about the relationship between organizational performance and organizational creativity, the relationship between organizational performance and open innovation, and the relationship between open innovation and organizational creativity.

A. Open Innovation dan Organizational Creativity

Innovation is not just about new products, but also new ways of producing them. Creativity can be called as the first step in getting innovation [19]. Therefore, creativity is input, while innovation is output. Creativity is the first stage of the innovation process. Creativity plays an important role in an organization or company, because good organizational creativity can produce good innovation as well [12]. In order for an organization to be innovative, making organizational

creativity an essential capability is needed in order to compete with competitors [11].

H1: Organizational Creativity has a positive effect on Open Innovation

B. Open Innovation and Organizational Performance

Open innovation is playing an increasingly important role in the innovative development of SMEs [9]. In the context of small and medium enterprises (SMEs), open innovation is a new strategy that allows managers to have access to the external capabilities of the organization to improve their performance [20]. Innovation is the most important source of competitive advantage because it can produce new products that better meet customer needs, can improve the quality of existing products, or can reduce production costs for products requested by customers [10]. Organizational performance can be identified through financial conditions and ability to produce goods and services, namely operational performance [8]. Thus, open innovation can be beneficial for SMEs, which will certainly improve organizational performance [16].

H2: Open Innovation has a positive effect on Organizational Performance

C. Organizational Creativity and Organizational Performance

The lack of innovation and creativity for SMEs is one of the causes of difficulties for SMEs in development [21]. Organizational creativity has a subjective role in enhancing entrepreneurial capabilities. Organizational creativity also plays a crucial role in solving organizational problems. Organizational creativity can be an important resource for companies in facing challenges and opportunities that exist outside the company [12]. In other words, organizational creativity will have a positive influence on organizational performance [22].

H3: Organizational Creativity has a positive effect on Organizational Performance

Based on the hypothesis that has been put forward, a model can be created that describes the relationship between each variable which can be seen in Fig. 1.

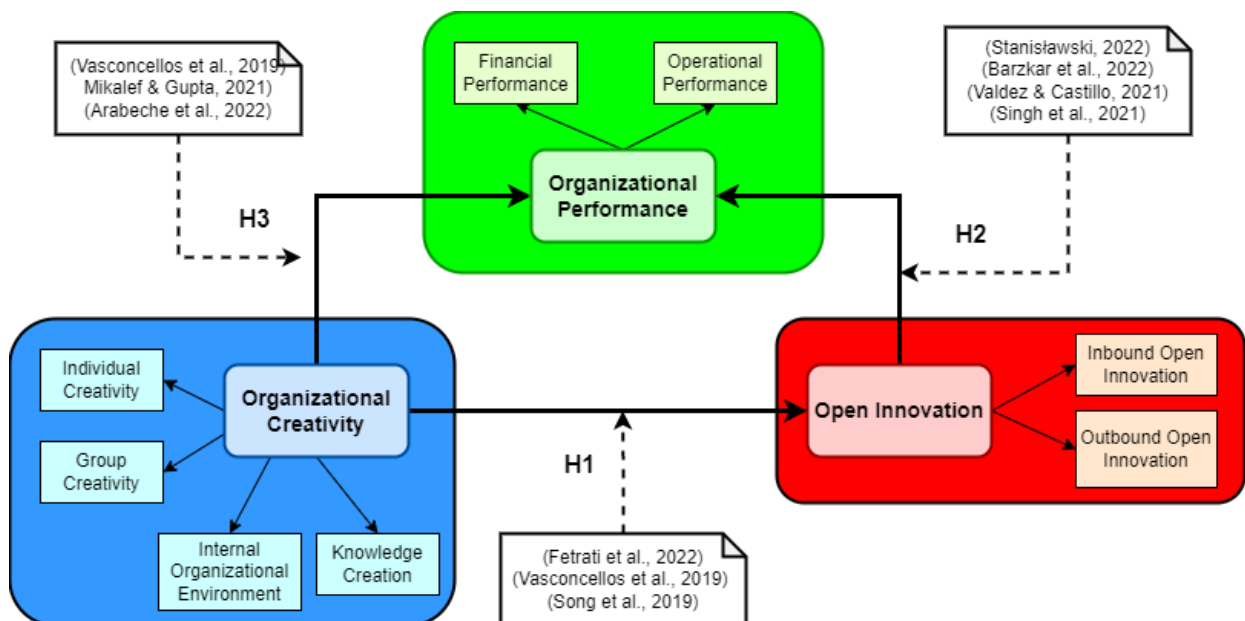


Fig. 1. Conceptual model for organizational performance.

Fig. 1 shows the model framework of this study. The model framework in Fig. 1 is used as a basic framework in developing organizational performance, especially for SMEs in this study. Each variable structured to support organizational performance has its own indicators. This study aims to get the relationship and how much influence each variable has so that the results can be used as a basis for Batik Tulis Madura SMEs to improve its performance.

Open innovation can be reviewed through the process, namely inbound open innovation and outbound innovation [16]. Then, organizational creativity can be known whether it is good or not through individual creativity, group creativity, internal organization environment, and knowledge creation [18]. As for organizational performance can be seen through financial performance and operational performance [14].

Organizational creativity will support SMEs to produce new innovations that will be liked or needed by consumers, because good creativity will also produce good innovation [11, 12]. On the other hand, open innovation also has an important role in improving organizational performance. This is because innovation is an important part so that an organization or SMEs can remain competitive [9, 10, 16]. In addition, organizational performance can also be increased through organizational creativity. This is because good organizational creativity will make it easier for organizations and SMEs to solve problems and face external opportunities and challenges [12].

Based on the hypothesis that has been made, the variables that have been determined and mapped in the conceptual model have an influence on increasing organizational performance, especially in Batik Tulis Madura SMEs.

V. CONCLUSION AND FUTURE WORK

This research constructs a model that explains the organizational performance of SMEs and its relation to organizational creativity and open innovation. The results of this model can be used as a basis for consideration in determining strategies to improve organizational performance, especially Batik Tulis Madura SMEs. This conceptual model has not been tested further empirically. Therefore, it is necessary to do further research to determine how much influence the variables have and what strategy to do.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Daffa Raihan Dityo as student who worked on the development of the framework that became the model for this research. Amelia Kurniawati and Augustina Asih Rumanti worked on and provided references for each variable.

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