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BUILDING THE COMPETITIVE ADVANTAGES OF MSMES THROUGH INCREASING THE CAPACITY OF BUSINESS MODEL INNOVATION

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Abstract. Business model innovation is one of the main activities that needs to be carried out by companies to maintain competitiveness in today's digital economy. Although research on business models has increased since the 1990s, little is known about the practice of business model innovation in Small, Micro and Medium Enterprises (MSMEs) in Indonesia. This study addresses these research gaps and focuses on investigating the triggers and outcomes of business model innovation in SMEs. The partial least squares path modeling (PLS-PM) method is used to test the model empirically using data collected in 2021 from 75 MSMEs in Indonesia. The results show that the innovation level of SMEs has a positive impact on business model innovation. On the contrary, The business environment and information technology do not have a direct effect on the level of business model innovation. In addition, the results show that the Business Model Innovation Level has a positive impact on the Business Model Innovation Outcome and subsequently on the overall business performance. The results of this study contribute to knowledge in the field of MSME business model innovation and offer useful insights for MSMEs who intend to innovate their business models.

Keywords: business model innovation; business model; MSMEs.

I. INTRODUCTION

Business model innovation is one of the main activities that must be carried out in every company to maintain competitiveness in today's digital economy. Although research on the topic of business models has increased significantly since the late 1990s, not much is known about the practice of business model innovation in Micro, Small and Medium Enterprises (MSMEs) in the Indonesian market. Business models and Business model innovation are getting more and more attention both in entrepreneurial practice and in current research. In general, according to Osterwalder and Pigneur **[1]**, a business model describes business logic and reflects how a company creates, delivers, and captures value. This implies that the most important management activity is to have a vision about the company's business model. There are various triggers that can push a company to innovate in their business model. For example, companies need to react to changes in demand and business ecosystems, increasing cost pressures, threats of substitute products, and the need to differentiate products, as revealed by Carayannis et al. **[2]**. Previous research in this area has mainly focused on the definition of the concept of business model (Osterwalder et al., **[3]**) and business model innovation (Carayannis et al.**[2]**), antecedents and barriers to business model innovation (Hartmann et al.**[4]**), and also internal and external factors of the success of business model innovation (Hartmann et al. **[4]**). However, most of these studies focus more on tracking business model innovations in general in large companies and only a few studies focus on Micro, Small and Medium Enterprises (MSMEs). Given that MSMEs also represent the main driving force of the Indonesian economy, more attention is needed in understanding MSME practices, innovation and competitiveness in the Indonesian national market.

This study addresses the research gaps presented above and focuses on investigating the characteristics of the practice of business model innovation in SMEs. Identification and understanding of business model innovation and its impact on business performance will contribute to knowledge and conceptualization of business model innovation in the context of MSMEs in Indonesia. This research article will present the characteristics of MSMEs in Indonesia in several business sectors, followed by an explanation of the methodology, discussion of results, limitations and future research directions. MSMEs as contributors to the National Gross Domestic Product (GDP) have an important role for the Indonesian economy. Based on data from the Ministry of Cooperatives and Small and Medium Enterprises (KemenkopUKM) in March 2021, the number of MSMEs reached 64.2 million with a contribution to GDP of 61.07 percent or a value of IDR 8,573.89 trillion. MSMEs are also able to absorb 97 percent of the total existing workforce, and can collect up to 60.42 percent of total investment in Indonesia.

Currently, especially in the era of the Covid pandemic, MSMEs are experiencing various problems and are facing a

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decrease in productivity which has an impact on a significant decrease in profits. To revive MSME business performance, solutions and recovery are needed. Short-term steps, for example, by creating stimulus on the demand side and using online platforms. Another effort is through evaluating business models and utilizing business model innovations that can support improving product quality and competitiveness, processing, marketing and others. Until now, there have been no reports related to the business model and innovation of the MSME business model. In an effort to encourage innovation in SMEs, Previous studies have revealed that many factors influence business model innovation, both internal and external factors. Ferreira **[5]** in his research stated that external factors such as environmental changes and information technology can affect the level of innovation. In this study, researchers see that the business environment is an external factor that drives the level of business model innovation, which includes competition and market conditions. Based on the results of previous studies, the researcher hypothesizes that: Hypothesis 1 (H1). The business environment has a positive effect on the degree of business model innovation. Previous research from Bouwman **[6]** and Johnson et al., **[7]** shows that information technology has a direct impact on business models. Technology has been identified as an important determinant of effective business, even being the main driving force in creating business model designs. Therefore, researchers hypothesize: Hypothesis 2 (H2). Information technology has a positive effect on the degree of business model innovation.

The concept of business model innovation is based on the ability of companies to leverage their internal capabilities and resources to innovate business models. Innovation in this study is seen as an internal driver and is defined as the company's ability or capacity to introduce new processes or new products/services in the company, as stated by Hult et al. **[8]** in his research. Based on the explanation above, the researcher hypothesizes that: Hypothesis 3 (H3). Innovation has a positive effect on the level of business model innovation. Previous research has shown that business model innovation activities are related to business model innovation outcomes. Foss & Saebi **[9]** in their research explains the dimensions of business model innovation in terms of "scope" and "newness." The "scope" dimension relates to the number of architectural and modular changes in the business model, while the "newness" dimension relates to whether the innovation in the business model is new to the company, industry, or world. Therefore, researchers hypothesize that: Hypothesis 4 (H4). The level of business model innovation has a positive effect on business model innovation outcomes.

Company performance is one of the important indicators for evaluating business results. The relationship between business model innovation and business performance has been confirmed by several previous studies, such as research from Aspara et al. **[10]**. Previous studies have shown that company performance can be measured by financial and non-financial indicators, or by combining the two. Therefore, researchers hypothesize that: Hypothesis 5 (H5). The results of business model innovation have a positive effect on business performance.

II. RESEARCH METHODS

Based on the literature review on Business Models, Business Model Innovation, Strategic Management, and Entrepreneurship, a comprehensive list of measurements will be generated. A questionnaire consisting of several questions about business models and business model innovation practices, MSME performance, and company background characteristics will be distributed to MSMEs (owners and employees) online or via telephone interviews in the second semester of 2021. Questionnaire question designs were obtained from several previous research sources and also referred to the article by Pucihar et al. **[11]** regarding business model innovation. For the business environment variable, a list of statements was taken from Jaworski & Kohli **[12]** and Johnson et al., **[7]** and used in this study. For the Information Technology construct, the list of statements was adapted from Bouwman et al., **[6]** and Marolt et al., **[11]**. For the Innovation construct, the statement list was adopted from research by Hult et al. **[8]**, Atuahene-Gima & Ko **[13]**, Calantone et al., **[14]** and Naman & Slevin **[15]**. To measure the construct level of business model innovation, a list of statements was adopted from Osterwalder et al. **[3]**. List of statements from Ross was used to measure the outcome constructs of business model innovation. For the business performance construct, the list of statements was adjusted from previous research from Cucculelli & Bettinelli **[16]**, Guo et al., **[17]**, and Pati et. **[18]**. Figure 1 below presents the research model developed from a literature review.

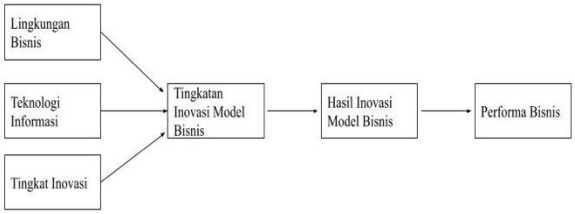

Figure 1. Research Model
Source: Pucihar, A.; Lenart, G.; Kljajić Borštnar, M.; Vidmar, D.; Marolt, M **[11]**.

A collection of statements from each research dimension was measured using a Likert scale (1: Strongly Disagree – 4: Strongly Agree). Descriptive analysis was carried out using SPSS software, then Partial Least Square Path Modeling analysis was carried out to test the research model used.

III. RESULTS AND DISCUSSION

Samples and Data Collection

MSME data collection is done by looking at information from various sources such as the website of the Ministry of Cooperatives and UMKM, reports from the

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Economic Census of the Central Statistics Agency, and the UKM Center unit of the Faculty of University and Business, University of Indonesia. The definition of MSMEs used refers to Law No. 20 of 2008 concerning Micro, Small and Medium Enterprises. Respondents from SMEs were asked a series of questionnaire questions by research assistants via telephone contact or online forms. As the final result, 75 MSMEs were sampled for analysis in this study, which consisted of 65 MSME owners, 2 MSME managers, and 8 MSME employees.

Table 1.Position of Respondents in SMEs

Position	Percentage	Actual amount
Owner	0.867	65
Manager	0.026	2
Employee	0.106	8
Amount	100%	75

Source: Processed results of researchers

Descriptive Statistics

Of the 75 SMEs that became the research sample, 68% were categorized as Micro Enterprises (businesses that have a maximum net worth of IDR 50 million excluding land and business buildings and maximum annual sales proceeds of IDR 300 million); 24% are Small Businesses (with a net worth of IDR 50 million – IDR 500 million and annual sales of IDR 300 million – IDR 2.5 billion), and 8% are Medium Enterprises (with a net worth of between IDR 500 million – IDR 10 billion and annual sales between IDR 2.5 billion – IDR 50 billion). The classification of business distribution is based on Law No. 20 of 2008. The SMEs that were the samples of the research came from various industries. Most of these MSMEs carry out their activities in the field of Provision of Accommodation and Provision of Food and Drink, Processing Industry, Of the 75 research samples, the operational years of MSMEs varied, starting from 1 year, 2 years, to more than 10 years. More than half of the MSME sample are new players, as shown in the following table.

Table 2. MSME operating age

MSME operating age	Percentage	Actual amount
<1 year	0.15	11
1 year	0.32	24
2 years	0.27	20
3 years	0.09	7
4-10 years	0.09	7
>10 years	0.08	6
Amount	100%	75

Source: Processed results of researchers

The researcher conducted a chi-square goodness-of-fit test aimed at proving that there were significant differences in the MSME business objects studied. Researchers decided to use only four business fields: processing industry; Wholesale and Retail Trade; Car and Motorcycle Repair and Maintenance; and other services considering that only these four business fields have a sample of > 5 so that they meet the requirements of the chi-square goodness-of-fit test (Yarnold, 1970). After doing the calculations, the results show that there are significant differences in the number of existing sample SME business fields.

The results show that the business environment and information technology do not have a direct effect on the level of business model innovation. This finding is contrary to previous research from Foss et al and Bouwman et al which confirmed a positive relationship between the business environment and information technology on the level of business model innovation. The researcher suspects that these different results arise from the composition of MSME respondents, where 68% are micro businesses and are in the accommodation and food supply industry, the processing industry, trade and repair of cars and motorcycles. MSMEs engaged in this field have traditionally not depended on the use of information technology. SMEs in this study do not recognize information technology which has an impact on the level of business model innovation. Whereas information technology is often identified as a supporting factor in the realization of corporate strategy and goals. According to a report from the OECD (Organization for Economic Co-operation and Development), a lack of investment, personnel, knowledge and skills, can hinder the adoption of information technology in MSMEs. The results of other studies show that the level of innovation as an internal factor shows a positive direct effect on business model innovation level activities. The level of innovation is seen as the ability to introduce new processes or products/services in SMEs. This finding is in line with the theoretical basis which explains that the concept of business model innovation is based on a company's ability to increase its internal capabilities and resources in order to innovate.

The level of business model innovation can be explained by the novelty contained in the company's business model. The results of this study indicate a positive direct impact of the level of business model innovation and the results of business model innovation. This finding is in line with previous research from Bouwman et al. **[6]** and Heikkilä et al., **[19]** which showed that activity from business model innovation will create business model innovation results that lead to higher business performance. Business model innovation outcomes are considered as those that are created as a result of changes in the business model. As outlined in the hypothesis, business model innovation outcomes have a positive direct impact on the overall business performance of a company. This finding is in line with previous research which confirms the relationship between business model innovation and business performance, as revealed by Aspara et al.**[10]**. In addition, the results of this study are consistent with research conducted by Giesen et al **[20]** with a theory of how different types of business model changes can result in increased business performance. Of the 75 MSME research samples, researchers found that MSMEs had challenges in adopting the use of business models. Similar to the findings by Florén & Agostini **[21]**, many companies experience

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difficulties in finding the right approaches, methods and tools for innovating their business models. As a result, MSMEs do not have an overview of how they create and deliver value to internal parties and consumers. This can then lead to inefficient decision-making and reduce competitiveness. Therefore, if MSMEs want to succeed in business model innovation, they need to use the available methods and tools in a more systematic and comprehensive manner. To overcome these challenges, a better understanding of MSME awareness of the importance of business model innovation, available methods and tools is so important. Since MSMEs represent a large part of the Indonesian economy, the government needs to provide environmental support for MSMEs to increase their innovation potential. One of the steps that can be taken is to form an environmental ecosystem from various stakeholders, such as universities, research institutions, and other MSME partners. Another way is to provide support to MSMEs in the form of tax breaks or alternative funding methods. In the end, what matters is the continuous learning and development of digital skills from MSMEs.

IV. CONCLUSION

Overall, the results of hypothesis testing show that internal and external factors have a positive impact on SMEs. However, the rapidly changing and evolving business environment and information technology were not found to have a direct impact on the level of business model innovation. In this study it was found that the level of business model innovation had a positive impact on the outcome of business model innovation. In addition, the results of business model innovation have a positive impact on overall business performance. This shows the importance of sustainable business model innovation activities for better business performance and competitiveness. Although this research has focused on several problems of MSME business model innovation and explained the practice of MSME business model innovation in Indonesia, there are a number of limitations which could become opportunities for further research. First, the research findings are only based on a sample of 75 MSMEs in Indonesia. Comparison of these findings with larger numbers may provide further insight into the differences in business model innovation factors and practices. In addition, this study offers only a partial view of the broad research area of business model and business model innovation. Therefore, further research can put more emphasis on other factors and other business model innovation practices. Finally, due to the complexity of the business model concept and business model innovation,

REFERENCES

[1] Osterwalder, A.; Pigneur, Y. *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*; Wiley: Hoboken, NJ, USA, 2010.

[2] Carayannis, E.G.; Sindakis, S.; Walter, C. Business Model Innovation as Lever of Organizational Sustainability. *J. Technol. Transf.* 40, 85–104. 2015,

[3] Osterwalder, A.; Pigneur, Y.; Tucci, C.L. Clarifying Business Models: Origins, Present, and Future of the Concept. *Commun. Assoc. Inf. Syst.* 15. 2005.

[4] Hartmann, M.; Oriani, R.; Bateman, H. The Performance Effect of Business Model Innovation: An Empirical Analysis of Pension Funds. *Proceedings of the 35th DRUID Celebration Conference*. Barcelona, Spain, 17–19 June 2013. 2013.

[5] Ferreira, F.N.H.; Proença, J.F.; Spencer, R.; Cova, B. The transition from products to solutions: External business model fit and dynamics. *Ind. Mark. Manag.* , 42, 1093–1101. 2013

[6] Bouwman, H.; Nikou, S.; Molina-Castillo, F.J.; de Reuver, M. The impact of digitalization on business models. *Digit. Policy Regul. Gov.* , 20, 105–124. 2018

[7] Johnson, M.W.; Christensen, C.M.; Kagermann, H. Reinventing Your Business Model. *Harv. Bus. Rev*. 86, 143. 2008,

[8] Hult, G.T.M.; Hurley, R.F.; Knight, G.A. Innovativeness: Its antecedents and impact on business performance. *Ind. Mark. Manag*. 33, 429–438. 2004,

[9] Foss, N.J.; Saebi, T. Fifteen Years of Research on Business Model Innovation. *J. Manag*. 43, 200–227. 2017,

[10] Aspara, J.; Hietanen, J.; Tikkanen, H. Business model innovation vs replication: Financial performance implications of strategic emphases. *J. Strateg. Mark.* , 18, 39–56 2010.

[11] Marolt, M.; Lenart, G.; Maleti˘c, D.; Kljaji´c Borštnar, M.; Pucihar, A. Business Model Innovation: Insights from a Multiple Case Study of Slovenian SMEs. *Organizacija*, 49, 161–171. 2016

[12] Jaworski, B.J.; Kohli, A.K. Market Orientation: Antecedents and Consequences. *J. Mark*. 57, 53–70 . 2013,

[13] Atuahene-Gima, K.; Ko, A. An Empirical Investigation of the Effect of Market Orientation and Entrepreneurship Orientation Alignment on Product Innovation. *Organ. Sci*. 12, 54–74. 2001,

[14] Calantone, R.J.; Cavusgil, S.T.; Zhao, Y. Learning orientation, firm innovation capability, and firm performance. Ind. Mark. Manag. 2002, 31, 515–524.

[15] Naman, J.L.; Slevin, D.P. Entrepreneurship and the concept of fit: A model and empirical tests. *Strateg. Manag. J*. 14, 137–153. 2013,

[16] Cucculelli, M.; Bettinelli, C. Business models, intangibles and firm performance: Evidence on corporate entrepreneurship from Italian manufacturing SMEs. *Small Bus. Econ*. 45, 329–350. 2015,

[17] Guo, H.; Tang, J.; Su, Z.; Katz, J.A. Opportunity recognition and SME performance: The mediating effect of business model innovation. *RD Manag*. 47, 431–442. 2017,

[18] Pati, R.K.; Nandakumar, M.K.; Ghobadian, A.; Ireland, R.D.; O'Regan, N. Business model design–

Volume 07, Number 02, July 2023, Page 467-471
e-ISSN: 2598-120X; p-ISSN: 2598-117X

performance relationship under external and internal contingencies: Evidence from SMEs in an emerging economy. *Long Range Plan*. 51, 750–769. 2018,

[19] Heikkilä, M.; Bouwman, H.; Heikkilä, J. From strategic goals to business model innovation paths: An exploratory study. *J. Small Bus. Enterp. Dev*. 25, 107–128. 2018,

[20] Giesen, E.; Berman, S.J.; Bell, R.; Blitz, A. Three ways to successfully innovate your business model. *Strateg. Leadersh*. 35, 27–33. 2007,

[21] Florén, H.; Agostini, A. The Business Model Innovation Map a Framework for Analyzing Business Model Innovation. *Proceedings of the 24th International Conference of the International Association for Management of Technology*, Cape Town, South Africa, 8–11 June 2015; pp. 2192–2207.