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# The Impact of Digital Entrepreneurship and Product Innovation on Business Sustainability of SMEs During Covid-19 Pandemic

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**ABSTRACT**
Business sustainability is one of the interesting issue in the current discussion of SMEs because SMEs are faced many uncertainties both in terms of demand and supply, including the increasing of business competition. Moreover, SMEs are the business sectors that have felt the impact quite considerably because of the corona virus pandemic (Covid-19). In contrast to the 1998 crisis, SMEs at that time became saviors in moving the national economy recovery. The aim of this study is to investigate the contribution of digital entrepreneurship and product innovation to business sustainability of SMEs. This study was conducted with a quantitative approach using multiple regression analysis. The sample consisted of 306 SMEs in the Padang City, West Sumatera, Indonesia. The data were collected by using questionnaire survey. The findings of this study prove that product innovation has a positive and significant contribution to the business sustainability of the SMEs, while digital entrepreneurship of the SMEs does not have significant contribution to their business sustainability.

***Keywords:*** *Business sustainability, product innovation, digital entrepreneurship, SMEs*

## 1. INTRODUCTION

Small and Medium Enterprises (SMEs) are always interesting subject to study and research. The SMEs make up almost 90% of the world's business population and employ 50-60% of the world's population [1]. Meanwhile in Indonesia, based on data from the Ministry of Cooperatives, the number of SMEs in 2018 was 64.2 million or 99.99% of the total number of business actors in Indonesia. The absorption of the SMEs workers was 117 million or 97% of the labor absorption in business. Moreover, the contribution of the SMEs to the national economy (GDP) was 61.1%, and the remaining 38.9% was contributed by large business actors, which amounted to 5550 or 0.01% of the total number of business actors. The SMEs were dominated by micro business, amounting to 98.68% with a workforce absorption capacity 89% [2]. These numbers show the large contribution of the SMEs to the Indonesian economy and even to the world. Therefore, the government and various parties continuously pay more attention to the SMEs as one of the profound supports for people's economy.

Business sustainability is one of the main issues in the current discussion of SMEs due to the fact that they are faced with many uncertainties in regards to supply, demand, and fierce competition [3]. Moreover, among many business sectors, the SMEs are impacted quite considerably from the Corona virus pandemic (Covid-19). In contrast to the 1998 crisis where SMEs became savior of the country's economy, SMEs in pandemic situation, however, fail to survive. In fact, to be able to survive and be sustainable, the SMEs need to meet quality standards, technology and competitive prices [4]. Additionally, the acquisition of technological mastery, particularly in the Industrial 4.0 era, is critical to achieve the sustainability of business operations [5]; however, the SMEs fall behind in terms of technological adaptation [6].

Sustainability is one of the major factors in any kind of business, including SMEs. In simple terms, business will go through processes; input- process- output. When it is associated with the concept of sustainability, inputs (what will be produced) processes (how to produce) and outputs (for whom goods/services are produced) must be sustainable [11]. Moreover, the sustainability concept is

further developed into 3 models; Business Sustainability 1.0 (Refined Shareholder Value Management), Business Sustainability 2.0 (Managing for the Triple Bottom Line) and Business Sustainability 3.0 (True Sustainability) [11].

Business sustainability 1.0 is related to the ability of businesses to seize opportunities and control risks arising from the developments in economic, environmental and social conditions [11]. Meanwhile, business sustainability 2.0 is the ability to manage the triple bottom line (people, planet, profit) – financial management, risk management and obligations and opportunities [11, 12]. Lastly, business Sustainability 3.0 is also known as true sustainability which takes on a much deeper meaning. It reflects the ability of businesses to contribute to sustainability issues in society through the products or services they produce. It is more about how business through its resources, competence and experience is able to take an action in overcoming economic, social and environmental issues such as climate change, population, corruption, poverty, pandemics, unemployment and financial instability and etc [11]. These three business sustainability models are used in the analysis of sustainability of SMEs in Padang, especially during Covid -19 pandemic condition.

From three sustainability models aforementioned [11], it is vivid that business sustainability is closely related to 4.0 technological acquisition, financial management and corporate social responsibilities. For the SMEs, overcoming business risk is not a simple thing [13]. It is due to the fact that the tools used by large companies in risk management are often not fit for the SMEs and rather complicated [14].

Business sustainability is also connected to the ability to innovate. The success of the SMEs in a highly competitive environment significantly depends upon the extent to which they are able to innovate [7]. Moreover, most of studies previously done on innovation have focused more on large and multinational companies [8]. In fact, innovation process in large companies is significantly different from innovation in the SMEs. Thus, the study of innovation in the context of SMEs has become prominent and interesting topic to discuss [8]. Furthermore, discussions about innovation are mainly related to how these innovations emerge, developed, grow and then displaced by other innovations. The effectiveness of an innovation will be seen from a significant change, for example, in the development of a product or service which is better than the previous ones [8].

The ability to innovate will encourage businesses to continuously present new better products or services, compete and be more sustainable in their business. Besides, in this digital era, the SMEs are required to be able to transform themselves into digital entrepreneurship - digital-based entrepreneurs. Combining digital innovation into entrepreneurship surely comes with the challenges in which local entrepreneurs are demanded to make use of technology in process, and they have to be able to analyze digital needs and markets, adopt all negotiation skills and enter the larger world market through e-commerce [15]. In addition, to be able to survive and be sustainable, the SMEs also need to meet quality standards, technology and competitive prices [4]. Thus, mastery of technology, especially in the Industry 4.0 era, will have a positive impact on the sustainability of business operations [5]; however, the fact is that the SMEs find it difficult in adapting to new technological developments [6].

Based on aforementioned elaboration, issues related to business sustainability for the SMEs have become prominent topic particularly during Covid-19 pandemic situation and new normal conditions. Therefore, this study focuses on business sustainability for the SMEs during the Covid-19 pandemic, challenges in adapting to the new normal situation, SMEs' digital entrepreneurship capabilities and product innovation capabilities.

## 2. METHOD

This study was conducted in Padang, West Sumatera, Indonesia with a population of 2294 food industries (SMEs). From the 2294 SMEs in Padang, 304 MSMEs were selected to participate in this study. Data were collected using a questionnaire which was distributed to the research respondents. Then, data were analyzed by multiple regression analysis.

## 3. RESULTS AND DISCUSSION

### *3.1. Prerequisite Test for Classical Assumption Analysis*

Before analyzing the data using multiple regression analysis, the analysis prerequisite tests which are normality test, multicollinearity test and heteroscedasticity test were carried out. The results are presented in the following section.

#### *3.1.1. Normality Test*

**One-Sample Kolmogorov-Smirnov Test**

| | | Unstandardized Residual |
|---|---|---|
| N | | 306 |
| Normal Parameters[a,b] | Mean | 0E-7 |
| | Std. Deviation | 18.82483209 |
| Most Extreme Differences | Absolute | .048 |
| | Positive | .029 |
| | Negative | -.048 |
| Kolmogorov-Smirnov Z | | .839 |
| Asymp. Sig. (2-tailed) | | .483 |

a. Test distribution is Normal.
b. Calculated from data.

From the above table, it is shown that the significant value was 0.484 which was greater than 0.05. From this result, it can be concluded that the residuals were normally distributed.

### *3.1.2. Multicollinearity Test*

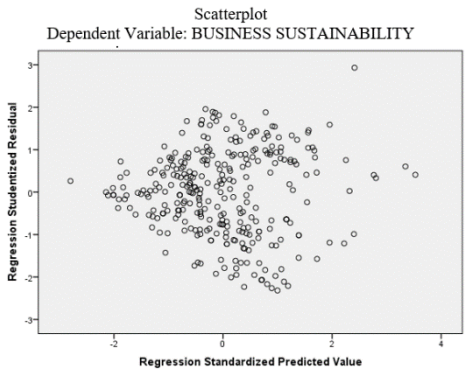
**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 30.706 | 4.914 | | 6.249 | .000 | | |
| | PRODUCT INNOVATION | .923 | .128 | .421 | 7.207 | .000 | .788 | 1.270 |
| | DIGITAL ENTREPRENEURSHIP | -.022 | .071 | -.018 | -.306 | .760 | .801 | 1.248 |

a. Dependent Variable: BUSINESS SUSTAINABILITY

From the table above, it can be seen that the Tolerance value was greater than 0.1 and the VIF value was less than 10, so it can be assumed that there was no multicollinearity problem between variables.

### *3.1.3. Heteroscedasticity Test*




In the above figure, it can be seen that the distribution of these residuals was irregular and widely distributed. The plots were scattered and did not form a certain pattern. Thus, there was no symptom of homoscedasticity. In other words, the regression equation fulfilled the assumption of heteroscedasticity.

## *3.2. Multiple- Regression Analysis*

The results of multiple regression analysis are presented in following tables.

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 25049.942 | 3 | 8349.981 | 23.331 | .000[b] |
| | Residual | 108084.162 | 302 | 357.895 | | |
| | Total | 133134.105 | 305 | | | |

a. Dependent Variable: BUSINESS SUSTAINABILITY

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 30.706 | 4.914 | | 6.249 | .000 |
| | PRODUCT INNOVATION | .923 | .128 | .421 | 7.207 | .000 |
| | DIGITAL ENTREPRENEURSHIP | -.022 | .071 | -.018 | -.306 | .760 |

a. Dependent Variable: BUSINESS SUSTAINABILITY

Based on the output, it is revealed that the significance value (Sig) for the simultaneous contribution of product innovation and digital entrepreneurship to business sustainability was 0.000. It means that there was a simultaneous contribution between product innovation and digital entrepreneurship to business sustainability.

Moreover, the t-test result shows the results of the partial regression test. From the t-test results, a constant value was 30.706. It indicates that if the independent variable (either product innovation or digital entrepreneurship) was constant, the value of business sustainability was 30.706. Furthermore, the product innovation variable (X1) had a regression coefficient of 0.923 and it had a significant contribution to business sustainability (Y). Meanwhile the Digital Entrepreneurship variable (X2) had a regression coefficient of -0.022 which means that digital entrepreneurship did not significantly contribute to business sustainability.

In regard to this issue, various literatures have agreed that innovation done by the SMEs will be very beneficial to increase company development, economic benefits and its competitiveness [16]. In addition, product innovation covers 2 dimensions; efficiency and efficacy. Efficiency reflects efforts to achieve success while efficacy reflects the success of the innovation itself. Due to this fact, the innovation process employs several steps from discovery to implementation as the efforts to achieve success [17] [18]. This process plays an important role as the SMEs can achieve sustainable development through the innovation process when they can maintain their innovation development [19]. The results of this study show that for the SMEs, the innovation process is one of the keys to success.

Therefore, it is necessary for the SMEs to adopt the culture of innovation that is generally owned by large companies. It implies that the SMEs need to carry out research and development on an ongoing basis continuously.

The results this study shows that digital entrepreneurship does not contribute to the business sustainability of the SMEs. This happens due to the fact that the SMEs do not have adequate resources and capabilities to develop their digital entrepreneurship as developing digital entrepreneurship of the SMEs requires assistance from third parties [20]. Looking at technological development, e-commerce has become a kind of disruptive technology that forces various changes to company activities, business processes, capabilities, markets and corporate culture. Large companies can quickly expand their digital platforms with all the resources at their disposal. However, this is not the case with the SMEs. They are highly dependent on third party assistance [21]. Without the assistance, they are left behind and do not have digital entrepreneurship skills.

## 4. CONCLUSION

This study examines the contribution of product innovation and digital entrepreneurship to the business sustainability of the SMEs in Padang, West Sumatera Indonesia. The results of this study show that product innovation has positive and significant contribution to the business sustainability of the SMEs. Digital entrepreneurship, however, does not contribute to the business sustainability of the SMEs. This implies that a culture of innovation development needs to be developed in the SMEs as in large companies. However, the digitization process is still an obstacle for the SMEs with their various limitations which need to be overcome.

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