ANALYSIS OF MSME BUSINESS PERFORMANCE IN THE ERA OF INDUSTRIAL REVOLUTION 4.0: CASE STUDY ON MSME IN THE CULINARY SECTOR

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Abstract


Kata Kunci: Innovation Capability, Technological Innovation, Business Performance

Keywords: Innovation Capability, Technological Innovation, Business Performance

Implementing innovation by MSME actors can be done by improving the quality of products or services, for example, by improving the production process or using more efficient technology to increase productivity and business effectiveness. The research aims to analyze the influence of innovation capability and technological innovation on business performance. The sample in this study consisted of 90 respondents from MSME actors in the culinary sector in Indonesia who were determined using a convenience sampling approach. Data collection uses a questionnaire instrument which is then distributed online. Data analysis uses the SPSS application by displaying data processing results through testing research instruments with validity and reliability tests, multiple regression analysis, coefficient of determination and hypothesis testing. Based on the results of data analysis, it is stated that innovation capability and technological innovation have a positive and significant effect on business performance. The research implications suggest that this research provides theoretical insights and practical views that can help MSMEs in the culinary sector in making strategic decisions. The implications of this research can help MSMEs improve their innovation capabilities, optimize the use of technology, and ultimately improve their overall business performance.

Keywords: Innovation Capability, Technological Innovation, Business Performance

Article History: Received: 16 December 2023 Revised: 18 December 2023 Accepted: 20 December 2023
INTRODUCTION

Entrepreneurship is a natural phenomenon in business that is part of business life (Halim, Grace, et al., 2021). A business is said to be healthy when entrepreneurship and management skills are adopted to change and learn. Entrepreneurship projected as a part of business life that contributes to the success of business organizations (Halim, Sherly, et al., 2021). People who actively handle business activities are responsible for achieving their vision (Julyanthry et al., 2021). However, people from different backgrounds and education, who raise the issue of entrepreneurial skills cannot be avoided and become part of the entrepreneurial process (Purba et al., 2022); (Diandra & Azmy, 2020).

Business development has entered a new era marked by achieving goals and objectives in any field of human life (Irwansyah et al., 2021); (Siahaan et al., 2020). This condition illustrates that the business world engaged in business can develop following changing times marked by developments in technology and information (Kumar & Ayedee, 2021); (Halim et al., 2020). Business success criteria usually relate to business performance and entrepreneurial performance towards the owner's goals and objectives (Basoeky et al., 2021). Success is synonymous with business development, including increasing the number of customers, increasing turnover, increasing profits, achieving a break-even point, and brand image and increasing the number of employees (Silalahi et al., 2020). The success of a business must be connected to the company's ability to develop its profit-oriented sales growth and optimize the use of existing resources (Haseeb et al., 2019). A business owned and managed by an individual or one person is usually called a sole proprietorship company (Rahman et al., 2021), commonly found in revolution 4.0 businesses with various forms and fields of business (Sudirman et al., 2021).

In the digital age, you need to be innovative and creative to build the kind of business you want to be in, free from day-to-day operations and driven by performance goals (Garcia-Morales et al., 2018); (Putri et al., 2021). Businesses that are more for less—that is, those that can contribute more value to society with less investment—are what entrepreneurs need to focus on if they want to thrive in the business world (Zhang et al., 2018). By paying attention to this, business people can be closer to the community and market their products better and again (Huhtala et al., 2014b). However, facts reveal weaknesses for MSME players in the culinary sector in adapting quickly to the ability to innovate and use digital technology (Ferreira & Coelho, 2020). Therefore, the urgency of understanding technological innovation is felt to be very crucial for all business actors, including MSMEs. By the explanation of the background to this problem, the urgency of this research is to analyze the influence of innovation capability and technological innovation on business performance.

LITERATURE REVIEWS

Innovation Capability

Innovation is an adaptation process by changing new methods or models to create a solution that can better overcome the problems experienced by everyone (Moussa, 2014). Multidimensionally, innovation has several important meanings: renewal, change, and excellence (Hogan et al., 2011). Innovations carried out by companies can help companies maintain market share while increasing profitability in that market (Chamsuk et al., 2017). In facing competition, innovation is carried out not only by reducing prices but
also through several non-price innovations such as product design, adjustments, and improving product quality, where this innovation must be carried out faster than competitors. The advancement of the firm will be impacted if innovation capability is managed and developed in business processes adequately (Saunila, 2017); (Huhtala et al., 2014a). According to studies looking at innovation capability, business performance significantly benefits from it (Carrasco-Carvajal & Garcia-Perez-De-Lema, 2021); (Sudirman et al., 2022). Therefore, based on several previous research results, this study was carried out to develop hypothesis:

**H1:** Innovation capability affects business performance

**Technological Innovation**

Digital transformation is a disruptive industrial change with a wide range of potential for industrial companies (Ahmad et al., 2019). Internet of Things, cyber-physical systems, and industry 4.0 are the main components of the development of information technology today (Thi & Mothe, 2010). Thus, specially designed items can be produced quickly and flexibly in large and small quantities (Augustinah et al., 2022). Comprehensive services around products are becoming increasingly important in this context. New information and communication technologies have given rise to challenges and opportunities for entrepreneurs (Taghizadeh et al., 2020) and companies in the cultural and creative fields that require adopting a changing environment where potential users and consumers want to participate in every stage of developing cultural and creative products (Sudirman et al., 2022). Technological innovation can provide many benefits for MSMEs in increasing their competitiveness. Although technology can help MSMEs increase their competitiveness, larger and more established competitors can also utilize technology more effectively (Hu, 2014). The results of previous research suggest that technological innovation significantly affects business performance (Chege & Wang, 2020). Therefore, based on several previous research results, this study was carried out to develop hypotheses:

**H2:** Technological innovation affects business performance

**METHODS**

This study combines an associative technique and a quantitative research design. The MSME actors in Indonesia’s culinary industry include the research population. The sample was obtained using a convenience sampling strategy because the population was unknown. Hair (2014) states that the size of the representative responses should ideally rely on the number of all indicators in the variable multiplied by 5–10 if the whole population is unknown. Since there are nine indicators in this survey, there are nine times ten, or ninety, samples of respondents. Because it satisfies the minimal sample requirement, this number is regarded as representative enough to be observed as representative of the population. A research instrument test comprising validity and reliability tests is used in this investigation. A normalcy test, regression test, hypothesis test, correlation test, and coefficient of determination make up the quantitative analysis. The operational definition of the innovation capability variable consists of client-focused innovation capability, marketing-focused innovation capability, and technology-focused innovation capability (Chege & Wang, 2020), the operational definition of the technological innovation variable consists of product innovation, process innovation, relative advantage, as well as complexity and compatibility (Carrasco-Carvajal & Garcia-Perez-De-Lema, 2021); (Yu et al.,
2017), the operational definition of business performance variables consists of financial performance and non-financial performance (Gunday et al., 2011; Felício et al., 2014).

RESULTS AND DISCUSSION

Table 1. General Profile of Respondents

<table>
<thead>
<tr>
<th>Categories</th>
<th>Details</th>
<th>Amount</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Men</td>
<td>38</td>
<td>42.22</td>
</tr>
<tr>
<td></td>
<td>Woman</td>
<td>52</td>
<td>57.78</td>
</tr>
<tr>
<td>Age (years)</td>
<td>20-29</td>
<td>15</td>
<td>16.67</td>
</tr>
<tr>
<td></td>
<td>30-39</td>
<td>20</td>
<td>22.22</td>
</tr>
<tr>
<td></td>
<td>40-49</td>
<td>30</td>
<td>33.33</td>
</tr>
<tr>
<td></td>
<td>50-59</td>
<td>25</td>
<td>27.78</td>
</tr>
<tr>
<td>Level of education</td>
<td>High School</td>
<td>42</td>
<td>46.67</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>28</td>
<td>31.11</td>
</tr>
<tr>
<td></td>
<td>Bachelors</td>
<td>20</td>
<td>22.22</td>
</tr>
<tr>
<td>Years of service</td>
<td>&lt; 1</td>
<td>25</td>
<td>27.78</td>
</tr>
<tr>
<td></td>
<td>1-5</td>
<td>35</td>
<td>38.89</td>
</tr>
<tr>
<td></td>
<td>6-10</td>
<td>10</td>
<td>11.11</td>
</tr>
<tr>
<td></td>
<td>&gt; 10</td>
<td>20</td>
<td>22.22</td>
</tr>
</tbody>
</table>

Validity and Reliability Test

Table 2. Validity Test Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Corrected items - Total correlation</th>
<th>N of Items</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation Capability</td>
<td>0.472</td>
<td>9</td>
<td>Valid</td>
</tr>
<tr>
<td>Technological Innovation</td>
<td>0.560</td>
<td>12</td>
<td>Valid</td>
</tr>
<tr>
<td>Business Performance</td>
<td>0.440</td>
<td>6</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Based on the validity test of Table 1 above, it is concluded that all indicators in the study have a value above 0.30, and the measurement items used in this research are valid. Next, a reliability experiment is carried out to measure the measurement items on the questionnaire items that describe the indicators of the variables.

Table 3. Reliability Test Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation Capability</td>
<td>0.869</td>
<td>9</td>
<td>reliable</td>
</tr>
<tr>
<td>Technological Innovation</td>
<td>0.810</td>
<td>12</td>
<td>reliable</td>
</tr>
<tr>
<td>Business Performance</td>
<td>0.745</td>
<td>6</td>
<td>reliable</td>
</tr>
</tbody>
</table>

The results of the experiment's reliability shown in table 2 above prove that all indicators have a Cronbach alpha value for each instrument > 0.60, so it can be concluded that all the instruments used are reliable.

Multiple Regression Test

Table 4. Multiple Regression Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>t-count</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>6,688</td>
<td>1,731</td>
<td>3.870</td>
</tr>
<tr>
<td>Innovation Capability</td>
<td>.339</td>
<td>.064</td>
<td>5.122</td>
</tr>
<tr>
<td>Technological Innovation</td>
<td>.218</td>
<td>.088</td>
<td>2.420</td>
</tr>
</tbody>
</table>

The equation model is obtained from the multiple linear regression above = 6.688 + 0.339X1 + 0.218X2, meaning that innovation capability and technological innovation positively affect business performance. Based on these equations, it can be explained as follows:

1. The constant value of 6.688 can be interpreted if the variables of innovation capability and technological innovation are considered zero, then the value of the business performance will be in the range of values 6.688.
2. The value of the beta coefficient on the innovation capability variable is 0.339, which means that every change in the innovation capability variable by one unit will result in a change in the business performance of 0.339 units with the assumption that the other variables are at a constant value.
3. The beta coefficient value on the technological innovation variable is 0.218, which means that every change in the technological innovation variable by one unit will change the business performance of 0.218 units with the assumption that the other variables are at constant values.

**Simultaneous and Partial Hypothesis Testing**

Experiment F is used to examine the variable binding simultaneously. Simultaneous hypothesis testing attempts to analyze whether innovation capability and technological innovation variables can simultaneously influence business performance.

**Table 5. Simultaneous Test Results**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>92,948</td>
<td>2</td>
<td>22,337</td>
<td>.000b</td>
</tr>
<tr>
<td>residual</td>
<td>133,165</td>
<td>87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>226,110</td>
<td>89</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the results of the simultaneous test analysis in table 5, the F-count value is 22.337 > from F-table with (0.05; 2 vs. 88) of 3.10 or with a significant 0.000 ≤ 0.05 can be interpreted innovation capability and technological innovation affect business performance simultaneously. Subsequently, a partial test was conducted to partially analyze the effect of innovation capability and technological innovation on business performance. Based on the results of data analysis in table 4, the results of the t-test in this study are as follows:

1. Innovation capability has a significant level of 0.000 ≤ 0.05, meaning that innovation capability significantly affects business performance.

2. Technological innovation obtained a significant level of 0.015 ≤ 0.05, meaning technological innovation significantly affects business performance.

**Coefficient of Determination Test**

The coefficient of determination measures how far a model can explain the variation of the dependent variable. The results of the determination test in this study can be explained in Table 6 below:

**Table 6. Coefficient of Determination Test Results**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>std. An error in the estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.648a</td>
<td>.420</td>
<td>.396</td>
<td>1.180</td>
</tr>
</tbody>
</table>

Based on the results of the data analysis in table 6 above, the coefficient of determination value is 0.420, which means that the level of business performance of 42% can be explained by innovation capability and technological innovation, while other factors can explain the remaining 58 %, not discussed in this study.

**Discussion**

Based on partial hypothesis testing (H2) results, innovation capability positively and significantly affects business performance. Implementing innovation by MSME actors can be done by improving the quality of products or services, for example, by improving the production process or using more efficient technology to increase productivity and business effectiveness. MSME players can also utilize customer or market data to develop more precise and accurate business strategies by mapping customer characteristics so that marketing strategies can be on target. An example of implementing collaboration with other parties is by joining a business community or collaborating with other partners to promote products or services, such as product branding in promotions. Most MSMEs face challenges in carrying out innovation because on average, they have a relatively short life cycle when they cannot face intense competition. The ability to
innovate is very urgent in improving the business performance of Micro, Small and Medium Enterprises (MSMEs) in the culinary sector. MSMEs must be able to innovate in the face of escalating competition in order to satisfy shifting consumer needs. MSMEs with innovation capabilities are able to create distinctive, eye-catching, and customer-focused goods and services. MSMEs may establish a strong point of uniqueness, draw in new business, and keep the loyalty of current clients by focusing on innovation.

Based on partial hypothesis testing (H2) results, technological innovation positively and significantly affects business performance. The success of MSMEs in the industrial era 4.0 is largely dependent on efficient business execution, as this research demonstrates. Using social media to market goods or services is an example of a business strategy that makes use of technology. MSME players may sell their goods online by utilizing platforms like Facebook Marketplace, Instagram Shopping, and Tiktok. Technological innovation has had a substantial and beneficial effect on Micro, Small, and Medium-Sized Enterprises' (MSMEs) ability to do business. With the use of business management software, MSME owners may effectively manage their orders, inventory, and money, lowering the possibility of mistakes and raising output. Additionally, the availability of food delivery services and online ordering platforms broadens the market for culinary MSME products and opens up new avenues for revenue expansion. Digital marketing is made easier by technology as well, giving MSMEs more visibility on websites, social media accounts, and specialized apps. Culinary MSMEs may use this technology to streamline their processes, expand their clientele, and become more competitive in a market that is becoming more and more competitive. MSMEs may compete in a more difficult market by using the correct technology to provide them benefits over their competitors in terms of cost and uniqueness. MSMEs have to make sure that the new technology they implement and the technical advancements they create meet their demands and objectives.

CONCLUSION

This research concludes that innovation capability and technological innovation have a positive and significant effect on business performance. Enhancing the commercial performance of Micro, Small, and Medium-Sized Enterprises (MSMEs) in the culinary industry requires a strong ability to innovate. MSMEs must be able to innovate in the face of escalating competition in order to satisfy shifting consumer needs. MSMEs with innovation capabilities are able to create distinctive, eye-catching, and customer-focused goods and services. Being at the forefront of innovation allows MSMEs to stand out from the competition, draw in new clients, and keep hold of current customers. In addition, MSMEs with innovative capabilities are better able to adjust to changes in regulations, culinary trends, and technology advancements. MSMEs in the culinary industry may boost their competitiveness in the market, lay a solid basis for long-term growth, and keep their company relevant in a constantly changing environment by investing in innovative skills.

There is an urgent need for innovative technologies to improve the financial performance of Micro, Small, and Medium-Sized Enterprises (MSMEs) in the food industry. Adopting technology gives MSMEs a lot of opportunity to grow at a time when efficiency and speed are crucial for success. Technology-driven company management solutions save
operating expenses and expedite internal procedures like inventory and financial administration. The availability of food delivery apps and online ordering platforms opens up new markets for MSMEs, broadens their client base, and boosts their potential for profit. Technology also makes it possible for culinary MSMEs to engage in digital marketing, which helps them establish their brands online and forge stronger ties with customers. MSMEs in the food industry may streamline operations, successfully compete, and maintain company continuity in this rapidly evolving and digitalized age by leveraging cutting edge technology.

The limitation of this research lies in the relatively small sample size. For further research, the author recommends that it is necessary to increase the sample size by selecting a wider research object, so that generalizations can be carried out and increase the number of predictor variables, such as competitive advantage, entrepreneurial orientation, market orientation, innovation culture, and human capital factors. Other mediating variables such as sustainable innovation and knowledge management can also be used in future research to explain better the relationship between innovation capability and technological innovation on the sustainable competitive advantage of MSMEs. Therefore for further research, it is necessary to add a more significant number of samples and place several research variables should be discussed in this study. In addition, on the other hand, for more complex models, data analysis methods with the CB-SEM approach using the Amos application can be used.

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