“Internal factors improving viability of small food and beverage businesses: The case of Indonesia”

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ARTICLE INFO

DOI
http://dx.doi.org/10.21511/ppm.20(1).2022.11

RELEASED ON
Thursday, 27 January 2022

RECEIVED ON
Wednesday, 01 September 2021

ACCEPTED ON
Friday, 14 January 2022

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JOURNAL
*Problems and Perspectives in Management*

ISSN PRINT
1727-7051

ISSN ONLINE
1810-5467

PUBLISHER
LLC “Consulting Publishing Company “Business Perspectives”

FOUNDER
LLC “Consulting Publishing Company “Business Perspectives”

NUMBER OF REFERENCES
58

NUMBER OF FIGURES
0

NUMBER OF TABLES
3

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Small food and beverage business is considered highly contributing to the economy as it has a close linkage with local micro and small businesses, both upstream and downstream. However, this business group faces challenges; many of them are unable to survive, grow, and compete with large ones. This study is intended to analyze internal factors affecting the performance of small food and beverage businesses in Indonesia. With the use of 100 samples of small businesses, the study applied OLS multiple regression to examine the four internal factors, which are entrepreneurial characteristics, marketing strategies, business capital, and innovation activity. The study results show that marketing strategies, business capital, and innovation activities have a positive and significant effect on the performance of small food and beverage businesses. These findings indicate that small businesses depend mostly on those three factors with different levels of intensity for different business locations. Businesses located in universities and hospital areas are likely to have low intensity compared to those located in office areas or crowded places. Differently, entrepreneurial characteristics do not affect performance. Likely, small entrepreneurs did not have a strong business interest, still expecting to work in government organizations and companies. They established a business due to family encouragement and economic needs.

INTRODUCTION

The food and beverage industry is one of the crucial business sectors in every country, especially when viewed in terms of size. This group of businesses has a strong linkage with other economic activities, particularly local businesses. Therefore, this business is said to allow to drive up economic activities from upstream and downstream (Belyaeva et al., 2020). Unlike the large ones that rely mostly on imported materials, the small business applies raw materials produced locally. These businesses generally purchase raw materials and ingredients in traditional markets or directly at agriculture producers (Upe & Aswan, 2021; Prabowo & Rahadi, 2015). This then allows generating a chain of links with traders and local cultivators (Jusni & Aswan, 2020; Najib et al., 2011). In addition, this group also is linked with retailers. In marketing its products, this business is often found to be associated with retail businesses (Raharja et al., 2021).

Low barriers for the business establishment force a competitive business environment condition in this group. They allow many newcomers with new food concepts and variants (Lestari et al., 2020). As such, it introduces a severe competition not only felt by the old ones, but al-
so new ones. As a result, small businesses faced challenges to survive due to an eroding customer, even some of them are unable to compete and are forced to leave the market (Lussak et al., 2020).

Not to mention, small businesses face a variety of internal problems that lead to their inability to bring competitive and innovative management. Issues such as capital, competitive innovation and marketing, and entrepreneurial capabilities are not only encountered by the newly established businesses but also the scourge of experienced small businesses (Lestari et al., 2020). Consequently, these issues impede existing businesses to survive in the market against medium and large ones and even with newcomers as well (Saptaningtyas & Rahayu, 2020; Toaha et al., 2019).

Concerning internal issues, existing studies have focused on each of the issues or a combination of one or two of those internal factors. However, there is a lack of studies that combine the four internal aspects of entrepreneurial characteristics, capital, innovation, marketing strategies as a whole. Therefore, this study focuses on discussing the four internal factors, which are believed to have a high impact to achieve the competitiveness and the performance of small businesses in the food and beverage sector of Indonesia, especially in South and West Sulawesi Province as a proxy for other provinces in Eastern Indonesia.

1. LITERATURE REVIEW

The performance of small businesses has always attracted many researchers in various countries as many of these business groups are unable to develop, compete, and even survive in the market (Pham, 2017; Nkwabi & Mboya, 2019). The literature indicates that the main problem faced by this business is internal issues (Lestari et al., 2020; Widya-Hasuti et al., 2018). In contrast to medium and large businesses, small businesses are not affected by national and global economic shocks because they mostly serve their products to meet local demand, which is relatively more stable (Najib et al., 2011). Related to internal constraints, several studies have looked at various aspects of internal constraints. However, this study focuses on the four internal constraints that are believed to affect the performance of small businesses, especially in the food and beverage sector. Those internal factors are entrepreneurial characteristics, marketing strategy, business capital, and process innovation.

There is extensive literature discussing the important roles of entrepreneurial characteristics in small businesses and each of them has a different focus on small business success. For example, Lombardi et al. (2021) noted that entrepreneurship characteristics affect small business success and growth through strategic decision-making. Braidford et al. (2017) explained that a growth-incline attitude makes owners strategize their business for long benefits. Na-Nan et al. (2019) indicated that entrepreneurial characteristics would drive a commitment for the business. Further, according to Chye Koh (1996), owners with entrepreneurial capability will devote their energy to develop an organization by implementing creative ideas and exploiting opportunities optimally.

Concerning attitudes owned by entrepreneurs, Soomro et al. (2021) noted that achievement, personal control, innovation, and self-esteem are crucial characteristics to run a business, while Smith and Sharma (2002) studied also personal responsibility. Na-Nan et al. (2019) consider the attribute of self-efficacy.

Marketing strategy is an important part to improve the performance of the food and beverage business. The use of a marketing strategy could increase sales growth and profit growth (Al-Samirae et al., 2020; Taoketao, 2018) and brand awareness (Rokhim et al., 2021). It also could drive up buying decision behaviors (Sudari et al., 2019) and it affects market share (Heiens et al., 2019). Marketing activity to some extent is said to be a part of innovation activity (Nurliza et al., 2021). In a competitive market environment, price, promotion, and product quality are key to sustaining in the market (Kowalska, 2020). Further, Arthur and Yamoah (2019) said that different products offered could attract different consumers. It is also echoed in the small businesses that offer food and beverage products (Sudari et al., 2019).
Business capital is the funds available to carry out operating activities, including purchasing raw materials, equipment, and paying salaries to employees (Yulianingsih et al., 2021). Literature shows that funds are crucial for small businesses. When small businesses do not have sufficient capital, they are hardly able to implement their business ideas into real action (Masocha & Dzomonda, 2016), struggle to support innovation in the processing activities (Hutahayan & Yufra, 2019), and count mostly on the use of a conventional system (Adhikari et al., 2021). It is also difficult to produce competitive products and services (Minarelli et al., 2015), they are unable to grow and survive in the long term (Archer et al., 2020), and are vulnerable to internal and external shocks (Eggers, 2020).

Literature noted that banks are the main source of external funds for small businesses (Wong et al., 2018). However, many of these small businesses do not have the business information needed by lenders. This condition leads them to be treated as risky consumers so that they have difficulties to be granted funds from commercial banks (Mkhaiter & Werner, 2021; Jusni et al., 2019; Wasiuzzaman et al., 2020).

Many companies achieve their success through innovation. Innovation includes not only the development of new products and services but requires driving changes to produce and deliver what suits customer preferences (Testa et al., 2020; Török, 2019).

In connection with the innovation activities for small businesses in the food and beverage sector, it is underlined that mainly activities in the process could generate a competitive position of the business (Long et al., 2018). Process innovation may include the use of new technologies (Indrawati et al., 2020; Saptaningtyas & Rahayu, 2020), the use of new materials and spices (Hullova et al., 2019), and the adoption of new processing processes (Amabile & Pratt, 2016) as well as services delivered to customers (Chen et al., 2018).

Innovation influences attributes of a product and innovation towards service affects sales performance. Innovative values delivered with products may make consumers feel comfortable and buy again in close time (Huang et al., 2017). They even recommend such products to their family, friends, and neighbors (Wicaksono, 2021; Yeo et al., 2017).

2. AIMS AND HYPOTHESES

The study aims to analyze how the four internal factors could affect the performance of small businesses in the food and beverage sector of Indonesia. Such internal factors as entrepreneurial characteristics, marketing strategy, business capital, and process innovation have been studied, but only individually or one/two combinations of them to potentially affect small businesses, especially in the case of the eastern part of Indonesia that relies on labor absorption. Therefore, to fill this gap, this study further seeks the effect of the four factors affecting the performance of small businesses to survive and to grow.

Based on the literature review, the study leads to the following hypotheses:

H1: Entrepreneurial characteristics significantly affect small business performance.

H2: Marketing strategy significantly affects small business performance.

H3: Business capital significantly affects small business performance.

H4: Process innovation significantly affects small business performance.

3. RESEARCH METHODS

3.1. Sample, procedure, and description of main variables

The study applied a quantitative approach with the use of 100 samples of small businesses focusing on food and beverage businesses located within the South and West Sulawesi Provinces comprising 3 cities and 27 regencies. The instrument used to reach the respondents is a self-administered questionnaire of the four main variables, which are entrepreneurial characteristics, marketing strategy, paid-up capital, and innovative activity. The entrepreneurial characteristics are measured by four features: the need for achievement (four items), personal responsibility (two items), personal control (three items), and self-efficacy (three items). Concerning the marketing strategy, it contains
four features, which are price (one item), market (two items), promotion (two items), and quality (two items). In business capital, it uses three features that are capital sources, capital adequacy to support regular demand, and capital constraints. With regard to the innovation process activities, there are four features developed and each of them has one item: processing, technology, services, and materials and spices. The last is the small business performance that is measured with four different features with one item of each. These features are a perception of return on asset, return on equity, market share, and competitive position.

3.2. Data analysis

The study uses multiple linear regression analysis with ordinary least squares (OLS) to test four independent variables (entrepreneurial characteristics, paid-up capital, marketing strategy, and innovative activity) to affect small business performance in the food and beverage sector. The regression formula is:

$$\gamma_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon_i, \quad (1)$$

where $\gamma_i$ denotes the dependent variable of small business performance and $\epsilon_i$ is the random error component, and $\beta_0$ is a constant parameter, the parameter of $\beta_1, \beta_2, \beta_3, \beta_4$ are the regression coefficient associated with $X_1, X_2, X_3, X_4$ respectively.

To have efficient coefficient parameters called BLUE (Best Line Unbiased Estimator), evaluation on classical assumptions are applied for the assumption of normality with the use of PP Plot, linearity with Ramsey, multicollinearity with Tolerance and Variance Inflation Factor (VIF), heteroscedasticity using Rank Spearman, and autocorrelation with Durbin-Watson. Outlier detection is also evaluated using Z-score. The limit score for the Z-score is ±2.5.

4. RESULTS

The descriptive statistics of the main variables are given in Table 1. Entrepreneurship characteristic has a minimum score of 52 and a maximum score of 84 with a mean of 70.47 and a standard deviation of 5.787. Marketing strategy has a minimum score of 21 and a maximum score of 47 with a mean score of 32.85 and a standard deviation of 6.267. The lower score for independent variables is capital with a minimum score of 12 and a maximum score of 42. The mean of the variable is 30.16 and a standard deviation is 4.668. For the innovation activity, a minimum score is 24 and a maximum score is 55 with a mean of 42.01 and a standard deviation of 6.078. Concerning performance, it has a minimum score of 5 and a maximum score of 17 with a mean of 13.30 and a standard deviation of 1.997.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurship Characteristics ($X_1$)</td>
<td>52</td>
<td>84</td>
<td>70.47</td>
<td>5.787</td>
</tr>
<tr>
<td>Marketing Strategy ($X_2$)</td>
<td>21</td>
<td>47</td>
<td>32.85</td>
<td>6.267</td>
</tr>
<tr>
<td>Capital ($X_3$)</td>
<td>12</td>
<td>42</td>
<td>30.16</td>
<td>4.668</td>
</tr>
<tr>
<td>Innovation Activity ($X_4$)</td>
<td>24</td>
<td>55</td>
<td>42.01</td>
<td>6.078</td>
</tr>
<tr>
<td>Performance ($Y$)</td>
<td>5</td>
<td>17</td>
<td>13.30</td>
<td>1.997</td>
</tr>
</tbody>
</table>

Before applying classical assumption to data, the study conducted outlier identification in which the result indicated seven outlier data. Two data are respondent number 7 and 89 on the variable of the entrepreneurial characteristics; other two data are respondent number 98 and 100 on the variable of the capital, and another two data are 85 and 95 for the variable of the innovation activities. One outlier was also found, respondent 38, on the variable of performance. To follow the suggestion of Orr et al. (1991), the study dropped the outlier data.

With respect to evaluation classical assumption, normality test with the use of PP Plot indicates that the data distributed normally as it tightly sticks on the diagonal line of the graph. To linearity evaluation, all four independent variables said to have linearity with the dependent variable of performance as the calculated F score less than F table in which 0.421 < 1.698 for the entrepreneurial characteristic, 0.648 < 1.67336 for the marketing strategy, 0.991 < 1.78023 for the capital, and 1.141 < 1.68923 for the innovation activity. Concerning multicollinearity, data do not detect any multicollinearity since the score of tolerance range between 0.431 and 0.887, not close to 0.01, and the score of VIF range between 1.128 and 2.320, which do not exceed point 10. Evaluation on
Problems and Perspectives in Management, Volume 20, Issue 1, 2022

heteroscedasticity found that data do not show a problem since the score results do not indicate heteroscedasticity as the range of the score was lying between 0.730 and 0.963, which is above the critical point (0.05). To the last, concerning autocorrelation, data do not detect autocorrelation in the residual as given by the Durbin-Watson score (1.845) less than DW calculation (1.75308) or (1.845 > 1.75308).

Based on multivariate regression analysis given in Table 2, the regression equation is then formulated as \( Y = 3.309 - 0.025X_1 + 0.118X_2 + 0.102X_3 + 0.114X_4 + e \). The result indicates that performance is affected by four independent variables with a significant score of 0.01, except for entrepreneurship characteristics showing an insignificant score. The four independent variables are entrepreneurship characteristics \( (X_1) \), marketing strategy \( (X_2) \), capital \( (X_3) \), and innovation activity \( (X_4) \).

The determination coefficient parameter \( R^2 \) as given in Table 2 is 0.638 or 63.8% and Adjusted R Square is 0.621 or 62.1%. This means that the four predicting variables explain 63.8% of the variance and 36.2% of the variance cannot be explained by the studied variable. It also can be said that variation of the total performance of the small business in the food and beverage sector can be explained by the variation of entrepreneurship characteristics \( (X_1) \), marketing strategy \( (X_2) \), capital \( (X_3) \), and innovation activity \( (X_4) \).

Concerning the coefficient parameter, the coefficient score of the variable entrepreneurship characteristics is \(-0.025\). The coefficient parameter of the marketing strategy is 0.118 with the assumption that other variables are unchanged. With regard to capital, the coefficient parameter is 0.102 with the assumption that other variables are unchanged. As for innovation activity, its coefficient score is 0.114 with the assumption that other variables are unchanged.

Viewed from its contribution of each variable, standardized coefficients show that the marketing strategy \( (0.404) \) have a higher impact on the performance of the small businesses in the food and beverage sector, followed by the innovation activity \( (0.348) \), capital \( (0.215) \), and entrepreneurship characteristic \( (0.074) \).

<table>
<thead>
<tr>
<th>Table 2. Statistical results of OLS regression</th>
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<tbody>
<tr>
<td><strong>Regressors</strong></td>
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<tr>
<td><strong>Dependent Variable: Small Business Performance ( (Y) )</strong></td>
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<tr>
<td>Constanta</td>
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<tr>
<td>Entrepreneurship ( (X_1) )</td>
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<td>Marketing ( (X_2) )</td>
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<tr>
<td>Capital ( (X_3) )</td>
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<tr>
<td>Innovation Activity ( (X_4) )</td>
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<tr>
<td><strong>Summary Statistics</strong></td>
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<tr>
<td>( R^2 )</td>
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<tr>
<td>( \overline{R^2} )</td>
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<tr>
<td>( N )</td>
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</tbody>
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Note: * significant at \( P < 0.05 \), ** significant at \( P < 0.01 \), *** significant at \( P < 0.10 \).
On the basis of result, the hypothesis testing with alpha is 0.05 (\( \alpha = 0.05 \)) for the findings indicate that \( H_2 \), \( H_3 \), and \( H_4 \) are accepted, but \( H_1 \) is rejected.

## 5. DISCUSSION

Given the result in Table 2, it can be explained that entrepreneurial characteristics did not show a significant score to affect the performance of small food and beverage businesses in two provinces, South and West Sulawesi. It is possibly due to a fact that small business are generally established to meet local needs at most so that this group of businesses can be run even though the owner only has limited entrepreneurial skills. Further, it is also likely that the establishment of the businesses by their owners does not fully arise because of the entrepreneurial spirit. Many owners are forced to do business because they do not have other jobs and some set up a business to solely fill their time while looking for opportunities to be an employee in a company or a civil servant. This group commonly established business due to meet family needs or family encouragement (Herdjiono et al., 2017; Sondari, 2014). Consequently, it is found that many small businesses face difficulties to reach a growth stage since owners do not manage their business professionally. In that case, owners show low responsibilities and self-control when managing a business and little self-esteem to be an entrepreneur. This condition is also found in developing countries as stated by Ismail (2014) and Hutahayan (2019).

Business capital affects small business performance. This indicates that the increase in the capital could cause to affect the increase in small business performance. It is found that small businesses that have low constraints to have capital, could manage to produce food products that fit with the customer preferences and provide a wide variety of food products at most, able to have a well manageable raw material stock and to produce quality products. This condition has been found by Afrifa (2016) in England and Baños-Caballero et al. (2016) in Spain in which low working capital affects small business performance. On the contrary, small businesses suffering from capital constraints, face barriers to develop food products and they only manage to have limited stock on raw materials as is given by Chaocrotechuang and Mariano (2016) in Thailand. Consequently, they only could manage limited customers than those of small businesses with low constraints in the capital.

Concerning marketing strategies, it has a positive sign to affect small business performance. It is a fact that small businesses use marketing efforts with different degrees of intensity. Those small businesses that apply intense promotions have more sales, booked high profitability, and are most likely to have a higher portion of market share (Al-Samirae et al., 2020; Sudari et al., 2019). Marketing efforts carried out by the small businesses in the provinces can be classified into three activities, namely traditional marketing efforts through the word of mouth, collaborating with online transportation providers, and promoting through social media, such as Twitter, WhatsApp, Facebook, Instagram, etc. It is the fact that there is only a few small businesses that rely solely on offline marketing, this group of small businesses operates during the daytime only, and their location choices are close to customers at most, such places as at universities, hospitals, and office areas. This group of small businesses has a limited number of customers and focuses to serve a narrow area of customers. Differently, those businesses that use offline and online media in marketing their products can be found in crowded places in the main street and operate until night. Some small businesses still can be found in universities, hospitals, and office areas, but mostly they do not apply online marketing strategies routinely. They only adopt online marketing by cooperating with online transportations. The small businesses that earn good profitability indicated by several customers apply intense online marketing. Besides cooperating with online transportation providers, these
small businesses also actively and routinely provide updated information about their products through social media, such as Twitter, Instagram, Facebook, WhatsApp, etc. These businesses have more customers both during the day and at night. This indicates that small businesses in the food and beverage sector in the provinces apply marketing strategies to reach their customers. This condition has been noted by Nurliza et al. (2021) and Toaha et al. (2019).

Finally, innovation activities can also improve the performance of small businesses in the food and beverage sector. Small businesses that use technology in the process tend to have a good level of efficiency and can maintain the quality of the product produced (Prasanna et al., 2019; Singh et al., 2019). The use of technology is mostly found in small businesses that produce snacks product. Generally, this group is the franchise business. Some are also concerned to provide a comfortable place for their customer and excellent service. Conventional food and beverage businesses use technology on processing seasoning for efficiency on cost and time. This group is said to use low technology compared to other small business groups. This has been indicated by Karagouni and Kalesi (2011). However, this group maintains the taste offered to the customers as given by Hasibuan (2015). This group of small businesses is found in universities, hospitals, and partly in office areas at most. This indicates that the impact of technology on performance is real and can be viewed through various aspects, including efficiency and quality. This condition has been amplified by Aziati et al. (2014) in Malaysia; technical innovation capabilities and business innovation capabilities can influence business performance in terms of sales, market to speed, and new product performance. Further, Hutahayan and Yufra (2019) indicate the increase in quality performance through innovation.

CONCLUSION

The study examined four internal constraints that could affect small business performance in the food and beverage sector, which are entrepreneurship characteristics, marketing strategy, capital, and innovation activity. From the result, it can be concluded that except for entrepreneurial characteristics, the other four variables studied show significant relationships.

Concerning the entrepreneurship characteristics, it did not show a significant association because food and beverage products are produced mostly to meet local demands that can be conducted with low entrepreneurial skills only and the owners did not show entrepreneurial spirits. In a marketing activity, the owner shows a marketing strategy with a different degree of effort for the different locations. Small business located at hospitals and universities is likely to show low intensity counting mostly on offline marketing strategy compared to those small businesses located in crowded places (that use a combination of offline and online marketing strategies).

A positive relationship to business capital indicates that the businesses have sufficient capital. Businesses are mostly able to provide food and beverage products serving their target customers and have enough cash to support operational costs. For innovation activity on the process, attention is given in the processing activity to serve products following customer preferences. Tastes are highly concerned especially by those businesses located in hospitals and universities; quality of products served and excellent services are additional features considered by customers in crowded places.

AUTHOR CONTRIBUTIONS

Conceptualization: Jusni Ambo Upe.
Data curation: Jusni Ambo Upe, Andi Aswan.
Formal analysis: Jusni Ambo Upe, Andi Aswan.
Investigation: Jusni Ambo Upe, Andi Aswan.
Methodology: Jusni Ambo Upe, Andi Aswan.
Problems and Perspectives in Management, Volume 20, Issue 1, 2022

Project administration: Jusni Ambo Upe, Andi Aswan.
Resources: Jusni Ambo Upe, Andi Aswan.
Software: Andi Aswan.
Supervision: Jusni Ambo Upe, Andi Aswan.
Validation: Jusni Ambo Upe.
Visualization: Jusni Ambo Upe.
Writing – original draft: Jusni Ambo Upe.
Writing – review & editing: Jusni Ambo Upe, Andi Aswan.

ACKNOWLEDGMENT

The study on the small businesses in food and beverage sector is part of a research grant project from Hasanuddin University conducted by LP2M (Institute for Research and Community Services Institute of Hasanuddin University). In carrying out this study, the involvement of a number of agencies cannot be ignored: Cooperatives and Small and Medium Size Regional Office of South Sulawesi Province and Cooperatives and Small and Medium Size Regional Office of Makassar City.

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