1. INTRODUCTION

COVID-19 pandemic has become a global problem and affects the economies of countries in the world. This pandemic has caused the company to have to lock down and stop the company's activities for a while, which eventually caused the company to lose...
money. SMEs are small and medium businesses that do not use large numbers of employees. The average number of SME employees is only between 5 - 100 people. So that in the condition of the Covid-19 pandemic, SMEs can still easily manage their employees with a work from home and work shift policy.

SMEs as the driving wheel of the economy in Indonesia because the numbers are so large (more than 62.5 Million) and scattered are the main potential to be able to transform into sustainable entrepreneurs (data jumlah UMKM di Indonesia). The government intensively encourages SME awareness, which is expected to be able to foster environmentally-friendly behavior (Wahab et al., 2017).

Indonesia, as one of the countries supporting the SDGs (Sustainable Development Goals) policy, is currently trying to encourage SMEs that have a significant role in the national economy to transform into sustainable entrepreneurs. This action is reflected in the emergence of government policies that prioritize the development of SMEs that are environmentally oriented (Zulfikar et al., 2019). The government continues to raise awareness about the impact of environmental damage through a green economic campaign that is rife in Indonesia and is expected to be able to foster pro-environment behavior for economic actors and the people in Indonesia (Wahab et al., 2017).

In general, the current SMEs selection is how to keep the business and keep the profits going. The level of understanding and willingness of SME owners is one of the main factors that hinder the implementation of the concept of a green economy in SMEs (Zulfikar & Mayvita, 2019). The previous researcher had found the internal factors that are likely to have an impact on SMEs' environmentally friendly behavior (Uhlner et al., 2012; Ghadge et al., 2017; Johnson, 2015; Shields & Shelleman, 2015; Koe et al., 2015; Font et al., 2016; Wahga et al., 2018; Gandhi et al., 2018; Thanki & Thakkar, 2018).

But unfortunately, there has not been a single study that explores the influence of these factors in an ongoing pandemic atmosphere. Our research purpose is to describe the level of effectiveness of the contribution and ability of competitive advantage and corporate culture in improving the behavior of SMEs with environmental insights.

As the following background, this research tried to solve the following problems:
- What is the connection between competitive advantage and corporate culture to SMEs' sustainable behavior during the COVID-19 pandemic?
- How much do the competitive advantage and corporate culture contribute to sustainable SMEs behavior in COVID-19 pandemic condition?

2. REVIEW OF LITERATURE

2.1. Sustainable Entrepreneurship

Sustainable-entrepreneurship is categorically different from commercial entrepreneurship or conventional entrepreneurship, especially in the case of combining three business values, such as economic, social, and environmental values (Shepherd & Patzelt, 2011).

Some indicators that can reflect sustainable entrepreneurship behavior include making energy and water savings,
implementing waste management, not releasing active air pollutants, and not releasing active substances water and soil pollutants (Muñoz & Dimov, 2015).

2.2. Competitive Advantages

Some of the benefits that companies can enjoy with the existence of environment-based business activities include reducing costs, reducing the amount of waste, and differentiation. These benefits will lead to its competitive advantage for SMEs and can motivate SMEs to continue to adopt environmentally sound business activities (Battisti & Perry, 2011; Font et al., 2016; Krishnan & Ganesh, 2014).

2.3. Company Culture

The key to a successful implementation of environmental-based business activities are personal values and owner's ethics, social and moral responsibility, management support and commitment, and the level of employee’s environment knowledge (Koe et al., 2015). The corporate culture factor is one of the factors driving the behavior of sustainable SMEs entrepreneurship (Cambra-Fierro & Ruiz-Benitez, 2011; Ghadge et al., 2017; Wahga et al., 2018).

The owner's habits and style of doing business have an impact on the company's ecological oriented business activities (Font et al., 2016). Several other studies mention that successful implementation of sustainable entrepreneurship was driven by the top management’s commitment (Gandhi et al., 2018), and social responsibility and attention to senior management are factors driving the environmentally oriented business activities (Johnson, 2015; Thanki & Thakkar, 2018).

3. RESEARCH METHODS

This research is a quantitative study to determine the behavior of SMEs who are environmentally aware, the level of competitive advantage, and the condition of the corporate culture. This study involved 194 SMEs in South Kalimantan – Indonesia, the sample was determined by purposive sampling and using a questionnaire as research instrument. Respondent response

![Figure 1. Research Design](image-url)
data are then analyzed with the Structural Equation Model to determine the relationship, direct effect, and effectiveness of contributing factors of competitive advantage and corporate culture on environmentally friendly behavior (Figure 1).

4. DATA AND RESEARCH RESULTS

4.1. Respondent Characteristics

The majority of respondent characteristics used in this study are female, elementary/middle/high school education level, an individual business or family business, have a workforce of under-five people in trade field, and has running operation for 2-5 years (table 1).

4.2. SEM Analysis

The research model used in this study was shown in Figure 2. The Chi-Square value gave a value of 48,942 and included in the small Chi-Square value category, with a probability value of 0.002 still below 0.05, which is a condition of probability value (not fulfilled).

The research model has provided the value of GFI and the value of AGFI by the GOF standard because both benefits are above 0.9. TLI value is 0.921, and the CFI value is 0.948, where both values are still below the cost of 0.95, which is the required TLI and CFI value. The research model has been able to provide an amount of RMSEA is 0.066 ≤ 0.080, which is a requirement that must be met by an SEM model (table 2).

The GOF Index still not fulfilled by our research model, so it must first be modified in order all GOF criteria can be met, and the

Table 1. Characteristics of Respondents

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number of</th>
<th>%</th>
<th>Characteristics</th>
<th>Number of</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender Owner</strong></td>
<td></td>
<td></td>
<td><strong>Business fields</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>93</td>
<td>48%</td>
<td>Trading</td>
<td>57</td>
<td>29%</td>
</tr>
<tr>
<td>Women</td>
<td>101</td>
<td>52%</td>
<td>Services</td>
<td>37</td>
<td>19%</td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td></td>
<td>Non-Food Industry</td>
<td>23</td>
<td>12%</td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td></td>
<td>Food Industry</td>
<td>42</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Owner Education Level</strong></td>
<td></td>
<td></td>
<td><strong>Business Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary/Middle/High School</td>
<td>105</td>
<td>54%</td>
<td>Construction</td>
<td>8</td>
<td>4%</td>
</tr>
<tr>
<td>Diploma</td>
<td>23</td>
<td>12%</td>
<td>Agro-industry/Agrotrade</td>
<td>17</td>
<td>9%</td>
</tr>
<tr>
<td>Under Graduate</td>
<td>54</td>
<td>28%</td>
<td>Others</td>
<td>10</td>
<td>5%</td>
</tr>
<tr>
<td>Master/Doctoral</td>
<td>12</td>
<td>6%</td>
<td>Total</td>
<td>194</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td></td>
<td><strong>Business Form</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual / Family Business</td>
<td>102</td>
<td>40.91</td>
<td>2 - 5 years</td>
<td>63</td>
<td>38</td>
</tr>
<tr>
<td>Cooperation Business</td>
<td>68</td>
<td>25.21</td>
<td>6 - 10 years</td>
<td>57</td>
<td>28</td>
</tr>
<tr>
<td>Limited Liability Company</td>
<td>24</td>
<td>33.88</td>
<td>Above 10 years</td>
<td>48</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>194</td>
<td></td>
<td>Total</td>
<td>194</td>
<td></td>
</tr>
</tbody>
</table>

Employee

<5 people                        | 118       | 61%|
5 - 20 people                    | 65        | 34%|
> 20                             | 11        | 6% |
Total                            | 194       |    |
The modification process will be carried out according to the modification indices provided by the software (Table 3). After the modification is done, the research model obtained is presented in Figure 3. The modified research model can provide Probability, GFI, AGFI, TLI, CFI, and RMSEA values that are following GOF.
standards so that the research model can be used for subsequent research data analysis.

4.2.1. Test Pre-requisites SEM

A. Normality

The normality test is performed using a critical ratio (CR) value of ±2.58 at a 0.01% significance level, and test results on research data indicate that the CR value is between -2.58 and +2.58 (table 4), so it can be said that the normality of research data is fulfilled.

B. Outliers

Outlier test results found 12 data that contain outliers, namely, information 1, 15, 17, 43, 45, 53, 76, 119, 126, 131, 134, and 136 because there are several p1 or p2 values of these data values below 0.05 (Table 5).

C. Multicollinearity and Singularity

Research data analyzed showed that the covariance matrix determinant value is
183.72 because the cost is far from zero. Our research data does not have multicollinearity and singularity and feasible to use.

**D. Construct Validity and Reliability**

The result of the construct validity and reliability test shows that all constructs provide AVE (Average Standardized Loading Variance Extracted) more than 0.5. The CR (Construct Reliability) more than 0.7 (table 6), so it can be said that the construct used has fulfilled SEM analyst requirements.

### Table 5. Outliers Test Results

<table>
<thead>
<tr>
<th>Observation number</th>
<th>Mahalanobis d-squared</th>
<th>p1</th>
<th>p2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>33.081</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>15</td>
<td>22.461</td>
<td>.008</td>
<td>.011</td>
</tr>
<tr>
<td>17</td>
<td>18.953</td>
<td>.026</td>
<td>.171</td>
</tr>
<tr>
<td>43</td>
<td>18.532</td>
<td>.029</td>
<td>.180</td>
</tr>
<tr>
<td>45</td>
<td>19.274</td>
<td>.023</td>
<td>.322</td>
</tr>
<tr>
<td>53</td>
<td>18.442</td>
<td>.030</td>
<td>.122</td>
</tr>
<tr>
<td>76</td>
<td>17.487</td>
<td>.042</td>
<td>.309</td>
</tr>
<tr>
<td>119</td>
<td>25.545</td>
<td>.002</td>
<td>.022</td>
</tr>
<tr>
<td>126</td>
<td>42.416</td>
<td>.000</td>
<td>.001</td>
</tr>
<tr>
<td>131</td>
<td>19.245</td>
<td>.023</td>
<td>.202</td>
</tr>
<tr>
<td>134</td>
<td>25.425</td>
<td>.003</td>
<td>.004</td>
</tr>
<tr>
<td>136</td>
<td>24.230</td>
<td>.004</td>
<td>.003</td>
</tr>
</tbody>
</table>

4.3. Effect Test

In this study, the influence test is carried out using a modified research model to determine the effect of each factor on sustainable behavior. The results of the influence test are presented in table 7. They show that the competitive advantage factor with a loading factor of 1.426 does not have a significant effect on sustainable behavior because the Critical Ratio value of 0.886 is still below 1.96. The probability of 0.376 is more significant than 0.05, while the cultural factor the company has a considerable influence, with a loading factor of 6.221, the

### Table 6. Validity and Reliability Construct Test Results

<table>
<thead>
<tr>
<th></th>
<th>Standardized Loading</th>
<th>Measurement Error</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA1</td>
<td>Culture</td>
<td>0.176</td>
<td>0.031</td>
<td></td>
</tr>
<tr>
<td>CA2</td>
<td>Culture</td>
<td>0.146</td>
<td>0.021</td>
<td></td>
</tr>
<tr>
<td>CA3</td>
<td>Culture</td>
<td>0.119</td>
<td>1.251</td>
<td>0.615</td>
</tr>
<tr>
<td>CC1</td>
<td>Competitive</td>
<td>0.016</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>CC2</td>
<td>Competitive</td>
<td>0.126</td>
<td>0.016</td>
<td>0.570</td>
</tr>
<tr>
<td>CC3</td>
<td>Competitive</td>
<td>0.658</td>
<td>0.433</td>
<td></td>
</tr>
<tr>
<td>SE1</td>
<td>Behavior</td>
<td>0.461</td>
<td>0.212</td>
<td></td>
</tr>
<tr>
<td>SE2</td>
<td>Behavior</td>
<td>0.677</td>
<td>0.459</td>
<td>0.585</td>
</tr>
<tr>
<td>SE3</td>
<td>Behavior</td>
<td>0.498</td>
<td>0.248</td>
<td></td>
</tr>
</tbody>
</table>
value of Critical Ratio of $2,744 \geq 1.96$ and a probability of $0.045 > 0.05$.

### 4.4. Direct and Indirect Effect

The results of the path analysis by measuring direct and indirect effects (Table 8), competitive advantage, and corporate culture factors towards sustainable behavior of SMEs. The Path analysis shows that corporate culture factors provide more significant direct effects (0.533) towards a sustainable practice of SMEs compared to the direct effect given by the competitive advantage factor (0.331). While based on the value of indirect impacts, both competitive advantage and competitive advantage factors do not provide indirect effects on the sustainable behavior of SMEs, so there is no need for mediator factors for the research model.

### 4.5. Effectiveness Contributions

The practical contribution results of an analysis performed by observing the value of $R^2$ and shows that the corporate culture contributes to a higher active (71%) towards sustainable behavior compared to the competitive advantage factor, which only contributes effectively to 29% (table 8).

### 5. DISCUSSION

The results of this study provide a new perspective that during the COVID-19 pandemic, the competitive advantage factor did not have a significant influence on sustainable behavior because of the CR value less than 1.96 and the probability of more than 0.05. Our results are different from the effects of previous studies, which precisely stated that the competitive advantage factor had a real influence on sustainable behavior (Battisti & Perry, 2011; Font et al., 2016).

In a pandemic condition, SMEs could tend to no longer make competition in running a business consideration. SMEs tend to pay more attention to the sustainability of their businesses during the pandemic, although it is also possible that SMEs will consider other factors in running their activities such as profit levels (Williams & Donovan, 2015), products offered (Uhlamer et al., 2012; Hoogendoorn et al., 2015); incentives (Teri, 2015; Mutz, 2015; Gunsilius, 2015; Jansson et al., 2017; Zulfikar et al., 2020), customers (Günerergin et.al, 2012; Sáez-Martínez et al., 2016; Zulfikar et al., 2020), competitors (Testa et al., 2016; Zulfikar et al., 2020), government policies (Sáez-Martínez et al., 2016; Gandhi et al., 2018), employee knowledge (Uhlamer et al., 2012; Ghadge et al., 2017; Hockerts & Wüstenhagen, 2010), company image (Agan et al., 2013; Roy et al., 2013; Ghazilla et al., 2015; Sáez-Martínez et al., 2016; Gandhi et al., 2018) which examined the effect on SMEs 'sustainable behavior.
Based on the value of the effectiveness of the contribution given by the competitive advantage factor, it appears that the participation of the factors to SMEs' sustainable behavior during the COVID-19 pandemic shows a smaller percentage or only 21% when compared with a corporate culture value that has a contribution effectiveness value of 79%.

The competitive advantage factor and the corporate culture factor are found only to have a direct effect and do not have an indirect impact. This finding can be used to explain the relationship between two elements on sustainable behavior and does not require mediating other factors. So it can be said that the research model obtained can be used to describe the causalities relationship between competitive advantages and corporate culture of sustainable behavior during a pandemic.

During the COVID-19 pandemic, the corporate culture factor showed that it still had a significant influence on sustainable behavior because the CR value was 1.96 and the probability value <0.05. These results are almost similar to the results of previous studies conducted under normal conditions (Battisti & Perry, 2011; Font et al., 2016). Indicators such as the owner's personality value, management commitment, and social responsibility are the keys to a successful implementation of environmental-based SME business activities (Koe et al., 2015), and other critical success factors of SMEs are Environmental factors (Majláth et al., 2019). A good corporate culture will motivate employees to do work following organizational expectations and will form a strong foundation of commitment and productivity in an organization (Samuel et al., 2020). So, The corporate culture has a powerful influence in shaping sustainable behavior.

6. RESEARCH IMPLICATIONS

The implication of this study indicates that corporate culture factors such as owner personality values, management commitment, and social responsibility have an essential role in the behavior of SMEs sustainability during abnormal conditions such as the Covid-19 pandemic. This research implies that the owners further enhance personality values, increase management's commitment to supporting all activities. That lead to sustainable behavior and improve social responsibility, such as growing social activities that help the surrounding community and provide a multiplier effect on business existence in a region.

7. LIMITATION

The limitation of this study only examines the factors of competitive advantage and corporate culture factors on the behavior of SMEs in the event of a pandemic. However, there are still several other factors that may influence the behavior of SMEs’ sustainability. So that this research can be further developed by examining the influence of other factors such as products offered, incentives, customers, competitors, government policies, employee knowledge, and company image during a pandemic.

8. CONCLUSIONS

Our research conclusion that can be drawn is that during the COVID-19 pandemic conditions, the competitive advantage factor does not have a significant effect on the sustainability behavior of SMEs and only contributes effectively by 21%. In
comparison, the corporate culture factor is proven to have a considerable influence on the sustainability behavior of SMEs with a valid contribution rate of 79%. This study also shows that in the relationship between the factors of competitive advantage and corporate culture factors towards the sustainability behavior of SMEs, no other factors are needed to mediate the relationships between elements.

Acknowledgement

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References


Подстицај одрживог понашања МСП током пандемије Ковид-19 кроз конкурентске предности и корпоративну културу

Rizka Zulfikar, Rahmi Widyanti, Basuki Basuki, Prihatini Ade Mayvita, Purboyo Purboyo

Извод

До сада је спроведено више истраживања како би се идентификовали фактори који имају значајан утицај на одрживо понашање МСП. Али, нажалост, не постоји ниједна студија која истражује утицај ових фактора у тренутним околностима пандемије. Наша студија је покушала да опише ниво ефективности доприноса и способности фактора конкурентске предности и корпоративне културе у побољшању одрживог понашања МСП. Резултати ове студије могу се користити за боље стратегије развоја малих и средњих предузећа, посебно у условима где пандемије као што је КОВИД-19 још увек трају. Ово истраживање је спроведено на узорку од 194 МСП у провинцији Јужни Калимантан-Индонезија. Узорковање је обављено техником наменског узорковања и онлајн упитником као истраживачким инструментом. Анализа података је извршена коришћењем СЕМ методологије, тестирањем валидности и поузданости, тестирањем утицаја, анализом путање и анализом ефективности доприноса. Ова студија је показала да конкурентска предност није имала значајан утицај на одрживо понашање, док корпоративна култура има значајан утицај на одрживо понашање МСП. Укупан директан утицај и ефективност доприноса који даје фактор корпоративне културе је значајнији (79%) у односу на фактор конкурентске предности (21%).

Кључне речи: одрживо предузетништво, КОВИД-19, конкурентске предности, корпоративна култура, МСП


and Behavior to Implement Green Economy. JEMA: Scientific Journal of Accounting and Management, 16 (1), 34-45.