A Constructive Model of MSMEs’ Entrepreneurial Success Based on Green Management System and Psychological Capital in Semarang City

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Abstract
The study has purpose to identify the factors of entrepreneurial success by involving psychological factor and managerial skills factor with knowledge of the environment in SMEs in Semarang City in order to increase the success of entrepreneurship companies through competitive advantage. The population in this study is the owners of small and medium scale businesses or managers (general manager) in Semarang City. The required sample is 180 respondents who have experience in managing the business. Quantitative and qualitative analysis were used as the method of this study. The researchers conducted observations by distributing the questionnaires and interviews on SMEs regarding to psychological factors, social factors, understanding of business insight, managerial and competitive advantage. Structural equation modeling (SEM) with WarpPLS program application was used as the analytical tool. The results show that the contribution of psychological factors and environmental managerial capabilities of SMEs to competitive advantage and SME entrepreneurship success in the city of Semarang. Thus, the success of entrepreneurship in the future is not only oriented to the operational quality capability of the SME actors, but the psychological and behavioral things that are environmentally sound from the SME actors, which also need to be developed.

Keywords: SME, Competitive Advantage Strategy, Green Management, Psychological capital, entrepreneurial success.

1. Introduction

In the era of disruption, a very rapid environmental change which gives profound impact for business actors are noticeable. For most people, It is not an easy matter, in this era, running and managing a business in Small and Medium-sized Enterprise (SMEs). At first, setting up in small medium sized business is attempting since it does
not need a great amount of capital used. Yet, not a few of these small-scale business actors fell off in less than five years [35, 44].

Interestingly, among those failed business actors facing hardship in managing their business, there are always successful business actors who are able to maintain their business. In a limited material and financial resources, they can gain success, but some of them should have a bitter pill to shallow. The study conducted by Idar and Mahmood (2011) declared that personal characteristics determine the level of business performance. On the other words, entrepreneurial success is seen as a perspective of a strategic performance.

If it is seen from the standpoint of individual entrepreneurs, their current concerns are far more about sustainability than business growth, financial performance, and wealth creation alone. This, in turn, demands change in understanding entrepreneurial success as a concept. Therefore, the recent researches highlight that a new definition must be given to entrepreneurial success, and thus, the explanation must be more comprehensive.

If it is seen from environment perspective, it is acknowledged that a company cannot ignore its surrounding environment. Thereby, a system managing company sustainability efficiently, yet still mind environmental aspect is required. This notion can be carried out by implementing Green Management System. Green Management System is a set of standard process and practice that help companies to improve their sustainability by planning, conducting, evaluation, and regulating the environmental policies.

Green Management is as a management concept in business that I still taking into account the environmental aspect. The concept of Green Environment is now a concern among academicians. Green Management shows the construction of a green business, in which if it is implemented in a company, it enables to prevent the negative effects of the social and environmental condition. However, it is still profitable for the company.

If it is viewed from Resource Based Theory (RBT), there are more that can be understood about entrepreneurship success and its basis [26] as well as including the meaning of life in discussing it. To achieve the success, a small business entrepreneurs do not only need tangible resources (financial and material), but also intangible resources (human and psychological resources).

Generally, it is recognized that SMEs is lack of the resources and the ability to innovate and the ability to success in their entrepreneurship [61]. However, a few of successful story cannot be easily ignored, that is, encouraging further research, especially
within the framework of psychology. Hence, this study aims at answering those ques-
tions by examining the level of multi-relationship between psychological factor, envi-
ronmental factor and entrepreneurship success to expand entrepreneurship theory in
MSMEs, primarily in Semarang City as one the regions with annual growing of MSMEs
is 2.3%.

Overall, this study integrates entrepreneurship and other fields of study, such as
environment (green management), psychology, and competitiveness to understand
trepreneurial success. In particular, this study examines entrepreneurial success as
the theoretical result of psychological capital, environment (green management) and
competitive advantage as a mediator in strengthening entrepreneurial success.

1.1. Hypotheses development

The level of an organization success in bringing about good performance is strongly
influenced by the level of competitiveness advantage possessed and the degree of
sustainability of those varied advantages. This notion has previously been explained
through various RBT (Resourced Based Theory) studies, such as Barney, 1991; Bharad-
In entrepreneurship, the concept of success is defined as a series of positive results
from the use of internal human power guided by virtue (Seligman & Csikszentmihalyi,
2000). For this reason, entrepreneurs in viewing success are not only financially but
also psychologically (Gorgievski et al., 2011). For entrepreneurs, non-monetary incen-
tives are more satisfying, while monetary benefits do not always bring the greatest
satisfaction (Alstete, 2008; Csikszentmihalyi, 2003). Thus, the concept of success for
an entrepreneur does not only rely on physical and material strength.

The construct of competitive advantage, according to Ferdinand (2005), is one of
substantial aspects of company strategies developed to create company performance
and its sustainability. After this concept was well-developed by Porter (1985), it
becomes prominent in strategic theory literature. Notwithstanding that this is not a
new concept, recently, competitive advantage is seen as one of strategies to mediate
various processes in order to create a good performance to achieve a success in an
organization.

One of the main impetus for being responsible for the environment is a competition
[6]. There have been many evidences showing that improvements on the manage-
ment of business environment are able to give impact on creating mutual benefits
for small-scale business in terms of reducing waste materials, cost saving, increasing customers’ satisfaction, increasing employees’ commitment, improving products, having closer public relationship, and having competitive advantage (Simpson et al., 2004). Similarly, the empirical studies also indicate that there is a correlation between environment-based business practices and MSMEs’ managers, as well as organizational efficiency, profitability, and corporate image (Naffziger et al., 2003). The company ability to demonstrate its environmental responsibility enables to give an impact on the company marketing strategy, that is, by maintaining and improving its market share to differentiate the business from its competitors (Porter dan van der Linde, 1995). This action results in higher profitability in the business and improving the financial cost (Simpson et al., 2004).

On the other hand, the concept of RBT (Resource Based Theory) claims that a complex organizational system is the basis for the strategic advantage generated from the unique historical background of each company. A number of studies indicates that a key source of this unique resource is the typical resources possessed by the company ([5, 9, 29], luthans et al., 2004), which is built in the framework of non-material resources, such as psychological resources. Luttahns et al. (2004) mentioned that there are four indicators representing psychological constructs: self-efficacy, optimism, resiliency and hope. In the study of human resources, psychological capital is proven contributing to improve employee competitiveness. Whereas in general entrepreneurship studies, it is recognized that SMEs is lack of the resources and the ability to innovate and the ability to success in their entrepreneurship [61]. However, a few of successful story cannot be easily ignored. Those advantages are allegedly not only due to the influence of the strength of material resources but also non-material strengths, such as psychological capital from the business actors [35].

Thereby, with the implementation of green management and good management of psychological capital, it is expected that it will be able to improve the competitive advantage of MSMEs, which in turn will increase entrepreneurial success for the MSMEs. If it is applied effectively, it will create great success in influencing the outcome. Thus, it is important for MSMEs to pay attention to the factors that can be used as a key of success of MSMEs entrepreneurship. Some of those factors are the environmental management and psychological capital of the MSMEs’ manager, mediating by its competitive advantage factor. The research model is formulated as follows:

Based on the research framework, it is proposed the following hypotheses:
H1: Psychological capital has positive influence on competitive advantage of MSMEs in Semarang City.

H2: Green management has positive influence on competitive advantage of MSMEs in Semarang City.

H3: Competitive advantage has positive influence on entrepreneurial success of MSMEs in Semarang City.

H4: Competitive advantage mediates the psychological capital on entrepreneurial success of MSMEs in Semarang City.

H5: Competitive advantage mediates the relationship between green management and entrepreneurial success of MSMEs in Semarang City.

2. Research Method

2.1. Research design and population

Quantitative approach was used as the design of the study. The source of data about quantitative data was obtained from primary data sources. The goals of using this approach are to comprehend about the perspective of MSMEs’ people regarding to the knowledge management concept and the importance of the system to be implemented. The sampling technique used purposive sampling and snowball sampling, that is, the sample was chosen because it includes the criteria required of the study. The criteria are, a creative MSMEs have produced and distributed the products until the second generation at least, have already done succession or are planning succession, have a continuous business and there is an effort to increase its competitiveness. Regarding to the informant, it is chosen based on the flowing recommendation (snowball) from the previous informant. It is done to observe the phenomena deeper.

The analysis of Structural Equation Modelling (SEM) with warp PLS program was used to test the hypotheses. This statistical analysis tool was chosen because it has
several advantages. First, SEM-PLS is suitable for research models using the latent variable and have calculated the measurement error. Second, SEM analysis is able to test the multiple dependence simultaneously as in this research model. Third, the component-based SEM (PLS) is able to estimate a fairly complex model with a small sample size.

3. Result and Discussion

3.1. Instrument test (Validity test and reliability test)

Convergent validity and discriminant validity was used in this study. The following is an explanation of convergent validity and discriminant validity.

Convergent validity is measured by factor loading for the reflective indicator model or component loading for the formative indicator model. If the factor loading is $\geq 0.30$ or the factor loading and component loading of indicator is significant, then, the related indicators meets the validity convergent. Based on the calculation using WarpPLS 6.0, it shows that all those statement are claimed meeting the convergent validity. It is because that the factor loading is $\geq 0.30$, so the question items are used in this research. The discriminant validity of the questionnaire can be seen from the comparison of square root of AVE (Average Variance Extracted) with the correlation coefficient, if the root of AVE is bigger than correlation coefficient with other variables, then the questionnaire is claimed to be discriminant valid.

<table>
<thead>
<tr>
<th></th>
<th>PSYCAP</th>
<th>C.ADV</th>
<th>SUCCESS</th>
<th>GREENM</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCAP</td>
<td>0.766</td>
<td>0.410</td>
<td>0.144</td>
<td>-0.042</td>
</tr>
<tr>
<td>C.ADV</td>
<td>0.410</td>
<td>0.752</td>
<td>0.393</td>
<td>0.160</td>
</tr>
<tr>
<td>SUCCESS</td>
<td>0.144</td>
<td>0.393</td>
<td>0.712</td>
<td>0.145</td>
</tr>
<tr>
<td>GREENM</td>
<td>-0.042</td>
<td>0.160</td>
<td>0.145</td>
<td>0.645</td>
</tr>
</tbody>
</table>

Source: Processed Primary Data (2018)

Based on Table 1, the result of AVE and Correlation Coefficient root testing, it shows that all question items are bigger that the related correlation variables, so it meets the discriminant validity. It means that all statements are able to represent the problems in this study and it is as the real condition of the object of the study.
3.2. Result of reliability test

The following table is the result of instrument reliability testing.

<table>
<thead>
<tr>
<th>No.</th>
<th>Variabel</th>
<th>Composite Reliability Coefficient</th>
<th>Cronbach's Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PSYCAP</td>
<td>0.908</td>
<td>0.881</td>
</tr>
<tr>
<td>2</td>
<td>C.ADV</td>
<td>0.865</td>
<td>0.802</td>
</tr>
<tr>
<td>5</td>
<td>SUCCESS</td>
<td>0.859</td>
<td>0.802</td>
</tr>
<tr>
<td>6</td>
<td>GREENM</td>
<td>0.886</td>
<td>0.858</td>
</tr>
</tbody>
</table>

Based on Table 2, the result of reliability testing on variables in this study illustrates that all variables meet the composite reliability because the composite reliability coefficient > 0.70. All variables also meet the consistency internal reliability because the cronbach’s alpha coefficients > 0.60, so all variables have met composite reliability and consistency internal. It means that all questions are able to constantly measure the problems, in other words, it can be said that the questionnaire is reliable.

3.3. Fit model and quality indices

The criteria mentioned in goodness of fit model Table 3 is like a rule of thumb, so the result, righteously, does not act as rigid as absolute. If there are one or two indicators of fit model and quality indices, it is certain that the model can still be used. Here is the result testing of table 3.

It can be seen from table 3, that is the goodness of fit model has good result to explain the relationship among latent variables and its assumption.

3.4. The result of direct hypotheses

The hypothesis testing uses resampling method and t-test. The rules of decision for testing the hypotheses are as follows. When p-value obtained is ≤ 0.10 (alpha 10%), it is said to be significantly weak. If the p-value is ≤ 0.05 (alpha 5%), it is said to be significant. Lastly, if p-value is ≤ 0.01 (alpha 1%), it is said to be significantly high, mentioned in Table 4.
### Table 3: Fit Model and Quality Indices

<table>
<thead>
<tr>
<th>No.</th>
<th>Fit Model and Quality Indices</th>
<th>Criteria of Fit</th>
<th>The result of analysis</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Average path coefficient (APC)</td>
<td>$p &lt; 0.05$</td>
<td>0.224 ($P &lt; 0.001$)</td>
<td>Good</td>
</tr>
<tr>
<td>2.</td>
<td>Average R-squared (ARS)</td>
<td>$p &lt; 0.05$</td>
<td>0.110 ($P &lt; 0.032$)</td>
<td>Good</td>
</tr>
<tr>
<td>3.</td>
<td>Average adjusted R-squared (AARS)</td>
<td>$p &lt; 0.05$</td>
<td>0.101 ($P &lt; 0.041$)</td>
<td>Good</td>
</tr>
<tr>
<td>4.</td>
<td>Average block VIF (AVIF)</td>
<td>Accepted if $&lt; = 5$, Ideally $&lt; = 3.2$</td>
<td>1.010</td>
<td>Ideal</td>
</tr>
<tr>
<td>5.</td>
<td>Average full collinearity VIF (AFVIF)</td>
<td>Accepted if $&lt; = 5$, Ideally $&lt; = 3.2$</td>
<td>1.032</td>
<td>Ideal</td>
</tr>
<tr>
<td>6.</td>
<td>Tenenhaus GoF (GoF)</td>
<td>Small $&gt; = 0.1$, medium $&gt; = 0.25$, large $&gt; = 0.36$</td>
<td>0.236</td>
<td>Ideal</td>
</tr>
<tr>
<td>7.</td>
<td>Sympson’s paradox ratio (SPR)</td>
<td>Accepted if $&gt; = 0.7$, Ideally $1$</td>
<td>1.000</td>
<td>Ideal</td>
</tr>
<tr>
<td>8.</td>
<td>$R$-squared contribution ratio (RSCR)</td>
<td>Accepted if $&gt; = 0.9$, Ideally $1$</td>
<td>1.000</td>
<td>Ideal</td>
</tr>
<tr>
<td>9.</td>
<td>Statistical suppression ratio (SSR)</td>
<td>Accepted if $&gt; = 0.7$</td>
<td>1.000</td>
<td>Ideal</td>
</tr>
<tr>
<td>10.</td>
<td>Nonlinear bivariate causality direction ratio (NLBCDR)</td>
<td>Accepted if $&gt; = 0.7$</td>
<td>1.000</td>
<td>Ideal</td>
</tr>
</tbody>
</table>

Source: Processed Primary Data (2018)

### Table 4: The Hypotheses Result of Direct Influence

<table>
<thead>
<tr>
<th>No.</th>
<th>Relationship among variables</th>
<th>Path Coefficient</th>
<th>P-Value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Psycap C. ADV</td>
<td>0.420***</td>
<td>&lt;0.001</td>
<td>High significance</td>
</tr>
<tr>
<td>2.</td>
<td>C.ADV Success</td>
<td>0.413***</td>
<td>&lt;0.001</td>
<td>High significance</td>
</tr>
<tr>
<td>3.</td>
<td>GREENM C. ADV</td>
<td>0.198***</td>
<td>0.003</td>
<td>High significance</td>
</tr>
</tbody>
</table>

Source: Processed Primary Data (2018)

#### 3.5. The result of mediation hypotheses testing

#### 3.6. The influence of psychological capital (Psycap) on competitive advantage (c.adv)

Based on Table 4, the results of direct influence hypotheses testing shows that there is an influence of Psychological Capital (psycap) on Competitive Advantage (c.adv) with the path coefficient is 0.420 and $p < 0.001$. Given that $p < 0.01$, it is said to be
Table 5: The Result of Mediation Hypotheses Testing.

<table>
<thead>
<tr>
<th>No.</th>
<th>Variabel Penjelas</th>
<th>Variabel Mediasi</th>
<th>Response Variable</th>
<th>Path Coefficient of Indirect Influence</th>
<th>P-Value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>PSYCAP</td>
<td>C.ADV</td>
<td>SUCCESS</td>
<td>0.174</td>
<td>&lt;0.001</td>
<td>Mediate</td>
</tr>
<tr>
<td>2.</td>
<td>GREEN</td>
<td>C.ADV</td>
<td>SUCCESS</td>
<td>0.082</td>
<td>0.056</td>
<td>Mediate</td>
</tr>
</tbody>
</table>

Source: Processed Primary Data (2018)

high significant, so H1 is supported. The positive path coefficient (0.420) indicates that the higher the influence of Psychological Capital (Psycap), the Competitive Advantage (c.adv) is increasing.

The result of this study is in line with the study conducted by Putz, and Heinitz (2016) suggesting that psychological capital is as a psychological factor and positive behavior in certain circumstances and is beyond the ability to gain competitive advantage through self-development. According to this notion, the better the management of psychological capital of MSMEs, the better ability of MSMEs to compete.

3.7. The influence of green management (Green) on competitive advantage (c.adv)

Based on Table 4, the result of direct influence hypotheses shows that there is an effect of Green Management (Green) on Competitive Advantage (c.adv) with the path efficient is 0.198 and p = 0.003. Given that p < 0.01, it is said to be significant high, so H2 is supported. The positive path coefficient (0.198) indicates that the higher the influence of Green Management (Green), the Competitive Advantage (c.adv) is increasing.

The result of this study is similar to the study conducted by Arseculeratne dan Yazdanifard (2014), proposing how management of environment-based management can create a sustainable competitive advantage. Thereby, the better the MSMEs in managing their business concerning the environment, the better the MSMEs will compete in the industrial environment.

3.8. The influence of competitive advantage (c.adv) on entrepreneurial success (Success)

Based on table 4, the result of direct influence hypotheses testing, it illustrates that there is an influence of competitive advantage (c.adv) on entrepreneurial success (success) with the path coefficient is 0.413 and p < 0.001. Given that p < 0.01, it is...
said that significantly high, so H3 is supported. The coefficient path is positive (0.413), indicating that the higher the influence of competitive advantage (c.adv), the higher the entrepreneurial success (success) will be.

The result of this study is in the same vein with Saraswati and Widiartanto (2016), Setyanti and Farida (2016), Hakim and Hassan (2012) asserted that innovation as part of implementation of competitive advantage influences on the company performance. The better the company competes in industry, the better the company performance is.

3.9. The influence of psychological capital (Psycap) on the entrepreneurial success through competitive advantage (c.adv)

Based on Table 5 about the result of indirect influence hypothesis, it shows that there is an influence of psychological capital (Psycap) on the Entrepreneurial Success through Competitive Advantage (c.adv) with the coefficient path is 0.174 and \( p < 0.001 \). Given that \( p < 0.01 \), it is said that significantly high, so H4 is supported. It means that Competitive Advantage is a mediating variable since it is able to be an intermediator between Psychological Capital on Entrepreneurial Success.

The result of this study is similar to Juhdi et al (2015) and Cavus dan Gokcen (2015), stating that psychological capital has direct influence on entrepreneurial success mediated by competitive advantage factor.

3.10. The influence of green management (Green) on entrepreneurial success through competitive advantage (c.adv)

Based on Table 5 about the result of indirect influence hypothesis shows that there is an influence of Green Management (Green) on Entrepreneurial Success through Competitive Advantage (c.adv) with the path coefficient is 0.174 and \( p < 0.001 \). Given that \( p < 0.01 \), it is said to be significantly high, so H5 is supported. It means that Competitive Advantage is a mediating variable since it is able to be an intermediator between Green Management (Green) on entrepreneurial success.
4. Conclusions and Implications

Concluding all the explanations, it is noted that there is an influence of psychological capital on competitive advantage, the better implementation of psychological capital, the better increase the MSMEs’ competitive advantage will be. It is similar to the influence of green management, which has positive influence on the improvement of MSMEs’ competitive advantage.

More than that, the competitive advantage also influences the entrepreneurial success, the better MSMEs’ competitive advantage, the more success the business. Hence, psychological capital and green management have an important role in improving the entrepreneurial success through innovation. On the other words, competitive advantage is a mediating variable because it enables to relate psychological capital and entrepreneurial success, as well as to relate green management and entrepreneurial success. The better implementation and green management psychological capital on MSMEs, the better improvement the competitive advantage. The improved competitive advantage will boost MSMEs’ entrepreneurial success.

From the result of this study, it gives an understanding that psychological capital and green management is an important practice to implement, not only for big company but also for MSMEs. Company in general and MSMEs in particular keep giving attention and improve the implementation of psychological capital and green management in order to get the leading business performance.

There is still a limitation in this study, such as the limited sample on certain types of MSMEs (creative MSMEs). It is expected to add the number of sample used for the further research. Besides, this study only used quantitative approach, in which has not been able to answer the problems demanding deeper analysis. It is also suggested to use mix method to obtain more understanding regarding the phenomena.

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