The Relevance of Intellectual Capital Value in the Performance of Village-Owned Enterprises in the Tourism Sector

Yosi Mardoni\textsuperscript{a}, Noorina Hartati\textsuperscript{b}, Helmiatin\textsuperscript{c}, Ni Wayan Marsha Satyarini\textsuperscript{d},

\textsuperscript{a}Islamic Economics Study program, Universitas Terbuka, yosimardoni@ecampus.ut.ac.id
\textsuperscript{b}Public Financial Accounting Study Program, Universitas Terbuka, orin@ecampus.ut.ac.id
\textsuperscript{c}Management Study Program, Universitas Terbuka, email: helm@ecampus.ut.ac.id
\textsuperscript{d}Tourism Study Program, Universitas Terbuka, email: wayanmarsha@ecampus.ut.ac.id

Abstract

Village-owned enterprises (BUMDes) are village economic institutions with many obstacles in their journey, especially related to their performance. The primary purposes of this study are to analyze the performance of BUMDes from the perspective of intellectual capital and spiritual capital. A quantitative method with PLS-Structural Equation Modeling (SEM) was used to analyze this research. The research data was collected using purposive sampling, deliberately taking samples of several BUMDes to spread in Java island, Sulawesi island, Sumatra island, Maluku island, Kalimantan island, to Bangka Belitung island. The samples in this study were 129 respondents from several BUMDes that business unit in tourism village. The intellectual capital elements consist of human capital, spiritual capital, customer capital, and technology capital. This study indicates that human capital, spiritual capital, customer capital, and technology capital positively affect performance. Meanwhile, organizational capital does not influence performance.

Keywords: BUMDes in Tourism Sector, Intellectual Capital, Performance of BUMDes

1. INTRODUCTION

Researches related to the Intellectual Capital (IC) and Spiritual Capital (SC) on organizational performance has been conducted frequently (Sattar Abbasi et al., 2010; Arshad, Noor and Yahya, 2015), but how its applies to Village-Owned Enterprises (BUMDes), especially in tourism sector remain limited. Nowadays, some villages have started to progress. Many academics begin to develop some villages. It is indicated by the increasing of BUMDes in various villages. One of the business units that BUMDes can manage is the tourism village. Tourism Village was formed to increase the income or economy of the local community by developing the existing potential from the potential, culture, arts, and culinary. The tourism village is managed by a local community which is directly supervised by BUMDes.
In Indonesia, IC is implicitly recognized and regulated in Statement of Financial Accounting Standard (PSAK) 19 (revised 2010), which is an adoption of International Accounting Standard (IAS) 38 concerning Intangible Assets (intangible assets). Indeed, IC is not explicitly regulated in this standard, but Goodwill, which is one of the components of IC, is discussed completely with its accounting treatment (Ulum, 2016). IC is an Intangible Assets (intangible assets) which also important than Tangible Assets (tangible assets) such as buildings, machines, cars, and other physical assets.

*Intellectual Capital* is able to provide additional value to the company. Therefore, it increases competitiveness. Non-physical assets (intellectual capital) such as employee knowledge and competence, relationship with customers, innovation, computer systems administration, creativity in designing unique products, and the ability to master technology must also be the company's main concern besides physical assets profits. It needs to be a concern for owners and top management that training programs to improve employee competence need to be enhanced rather than just buying land for business expansion and new machines (Hartati, 2015).

Some research related to the relevance of intellectual value of capital and spiritual in the performance of Village-Owned Enterprises in the Tourism Sector was conducted because there were interesting things, namely the survival of BUMDes, which is significantly determined by competence BUMDes managers. Therefore, this research analyzed the existence of relevant values between IC components to assess the performance of the BUMDes organization. In this study, researchers took some IC components, namely Human Capital (HC), Organizational Capital (OC), Customer Capital (CC) and Technological Capital (TC).

1.1. Resource-based Theory (RBT)

Resource-based Theory (RBT) explains that an organization will be superior in business competition and its financial performance will be good by owning, controlling and utilizing strategic assets that are important both tangible and intangible assets (Wernerfelt, 1984). Companies that build their own resources and can control them by the company will have the ability to maintain their advantages compared to another case if the company buys or obtains its resources from outside the organization. Some unique resources owned and controlled by the company enable it to achieve and maintain superior sustainable performance. RBT is a thought that develops in strategic management theory and competitive superior of a company which believes that the company will achieve excellence if it has superior resources (Sholikhah, Rohman and W. Meiranto, 2010). A company is said to have
competitive excellence (competitive advantages) if it can create higher economic value compared to other companies in its industry (Widyaningdyah and Aryani, 2013).

1.2. Intellectual Capital (IC)

Some experts identify and describe different ICs based on several categories. Chen (2005) defines IC as an intangible asset including technology, customer information, brand name, reputation, and organizational culture that are very valuable to the competitive advantage of the company. Harrison dan Sullivan (2000) stated that the efforts of the company to maximize the value of IC routinely have an impact on its organizational success. Previous research conducted by Alawy (2010) identified the concepts and variables of IC consisting of competence, commitment, and job control. Furthermore, there is the quality of work-life, quantity of work, responsibilities, and attitude.

Sawarjuwono and Kadir (2003) explain that globalization, technology innovation, and intense competition in this century have encouraged companies to change the way they run their business so that their business can continue (sustain). Therefore, companies began to change their business based on labor (labor-based business) to a business based on knowledge (knowledge-based business). IC emphasizes the combination of intellectuality and capital to demonstrate the importance of knowledge (Serenko and Bontis, 2013). Intellectual capital is not only in the form of goodwill or patents as reported in the balance sheet, but employee competence, customer relation, innovation creation, computer systems, and administration, as well as the ability to master technology, are also part of intellectual capital (Soetedjo and Safrina, 2014).

The creativity of businesspeople today is a much more asset than cash or fixed assets. Some knowledge owned by businesspeople will provide additional value to the products produced, which can finally increase the company’s productivity. According to Bontis, Keow and Richardson (2000), IC is grouped into three categories: Human Capital, Structural Capital, and Customer Capital. However, the implementation of intellectual capital is still new, not only in Indonesia but also in the global business environment.

1.3. Human Capital

According to Bontis, Keow, and Richardson (2000), Human Capital (HC) represents the individual knowledge stock of an organization which its employees represent. HC is a combination of genetic factors, education, experience, and behavior towards life and business. The form of HC is a combination of knowledge, skills, innovation, and the ability of employees individually to complete tasks well, for example, company values, company philosophy, organizational culture (Edvinsson and Malone, 1997). Meanwhile, according to Brinker (1997),
HC is the ability of employees to provide solutions to customers, to innovate and update, for example, tacit knowledge, explicit knowledge, training programs, recruitment. Draper (1998) states that HC is the accumulative value of an investment in employee training, competence, and future, such as employee satisfaction, investment in employee education, employee turnover, and seniority.

1.4. Organizational Capital (OC)

According to Draper (1998), Organizational Capital (OC) is systematized and packaged competence combining systems for leveraging the company's innovative strength and value-creating organizational capability, for instance, Organizational Philosophy and Company Strategies and Directives.

1.5. Customer Capital (CC)

According to Brinker (1997), Customer Capital (CC) is relationships with people with whom a company does business, for instance, long-term contracts, customer satisfaction, customer profile, and customer success. According to Draper (1998), CC represents the value of the customer base, customer relationships, and customer potential, for instance, customer contract renewal, customer satisfaction, and new customer figures.

1.6. Technological capital

Technological capital in the company has an important role in increasing the basic knowledge of employees Sullivan (2000). Information technology (IT), research and development (R&D), and innovation are included in technological capital. The existence of technology is significant in that others quickly access the knowledge that is owned. The role of technology is significant therefore that others quickly access the knowledge that is owned. In addition, collecting information, storage and distribution will be easier with technological capital (Ngah and Ibrahim, 2009).

1.7. Spiritual capital

Wong and Palmer (2013) suggest that spiritual capital is an important factor in understanding the life aspects of everyone’s behavior and beliefs. Moreover, it has a strong impact on the economic, social, and political activities of the society.

1.8. Organizational Performance

Performance is a result (output) of a particular process done by all organizational components toward the sources used (input). Organizational performance cannot be separated from individual performance, resulting from collaborative activities among members or organizational associates to realize organizational goals. According to Robbins and Coulter (2010), performance is the level of efficiency and effectiveness, and innovation in
achieving goals by management and divisions in the organization (Robbins and Coulter, 2010). Afterward Slamet (2009) defines performance as a evaluating process how well a worker does their job compared to a standard then communicating it to workers. In an organization, evaluating an employee's job performance is one of the manager's duties. However, evaluating an employee's performance cannot get accurate results because the nature and method of such job performance evaluation depend on how human resources are viewed and treated. Organizational performance is also influenced by some factors such as organizational culture and leadership. Wartini (2014) in her research explained that if individuals in your organization follow organizational goals, the company performance can be improved.

1.9. BUMDes and Tourism Village

Village-owned enterprises or what is known as BUMDes. Its establishment is regulated in Law No.4 of 2015 in Article 3 (a). One of the objectives of establishing BUMDes is to improve the village economy and increase community business. One of the business entities built by BUMDes is a tourist village regulated in article 24 Ministerial Regulation Number 5 of 2015. The tourist village is currently being developed as one of the objects in the tourism sector. Tourist villages are continuously developed in rural areas, which still have unique characteristics. If it can be managed through an integrated and sustainable development approach to sustainable and sustainable tourism, it is very possible to provide added value not only from the ecological, educative, and socio-cultural aspects but also the added value from the recreational and economic aspects that are beneficial for the welfare of the nation, while minimizing poverty levels and development gaps in rural areas (Ministry of Tourism and Creative Economy, 2020)

Among the characteristics owned by a tourist village are the existence of natural resources that are still original, the uniqueness of the village, and the tradition and culture of the local community. These characteristics become the identity of a tourist village that has a special interest in tourism activities. Tourist villages are also indirectly able to encourage local people to protect and preserve nature and culture in the village (Masitah, 2019).

1.10. Human capital on organizational performance

Human capital can be analyzed using three dimensions: capability and potential, motivation and commitment, and then innovation and learning. Organizations need to increase their knowledge, skills, experience, and resource expertise (Alpkan et al., 2010). Human capital development through workplace training, formal education, and participation in seminars, conferences, and workshops can improve organizational performance
Human capital influences organizational performance.

1.11. Organizational capital on organizational performance

To support employees for optimal performance, organizational capital needs to be supported as a means and infrastructure. For instance, organizational capital will encourage organizations to have a sportsmanship culture that allows individuals to try new things, learn about them, and be ready to fail (Bontis, Keow, and Richardson, 2000). In addition, organizational capital is a critical link that allows intellectual capital to be measured at the level of organizational analysis (Bontis, Keow and Richardson, 2000). If an organization is able to codify company knowledge and develop organizational capital, for example, creating a good routine, a good organizational culture, then the competitive advantage will be achieved. These advantages will relatively cause higher employee performance. Based on resource-based theory, the company’s intellectual capital (organizational capital, one of the elements of IC) which owned by company is able to create a competitive advantage of the company to improve performance.

H2: Organizational capital affects organizational performance.

1.12. Customer capital on organizational performance

Customer capital includes the relationship between the established organization and stakeholders such as customers, suppliers, society, government, and others (Cohen and Kaimenakis, 2006). Husnah (2013) reveals that the relationship between organizations and customers, suppliers, and the government is important to improve performance in business management.

H3: Customer capital influences organizational performance.

1.13. Technological capital for organizational performance

Previous studies have found that technological capital has an important role in creating an organizational culture that allows employees to generate new ideas and knowledge. Some tools used to generate new ideas and knowledge include the internet, interaction with customers, fellow employees, members, and suppliers (Rauch, Frese, and Utsch, 2009).

H4: Technological capital influences organizational performance.
1.14. Spiritual capital on organizational performance

Tone and Sudarsono (2016); Neubert et al., (2017); Moghadam and Makvandi (2019); Nasrullah and Pohan (2020) show a significant effect of spiritual capital on organizational performance in their research. The research of Malik and Tariq (2016) also supports that there is a positive effect of spiritual capital on the performance of financial companies. Herminingsih (2012) found that spiritual capital is considered as intelligence that will provide strength to employees and provide reasonable job satisfaction.

H5: Spiritual capital influences organizational performance.

The hypothesis in this research can be seen in the following figure:

![Hypothesis Model](image)

**Figure 1.** Hypothesis Model

2. METHOD

A quantitative method approach using Structural Equation Modeling (SEM) was used as the research method in this study. Subsequently, purposive sampling was used as a data collection technique in this research with the following criteria:

1. The BUMDes management is active in the BUMDes organizational structure
2. BUMDes which have business units in the tourism sector

Conferring to (Ferdinand, 2002), sample guidelines using the Structural Equation Model includes:

1. 100-200 samples for maximum likelihood estimation technique.
2. Depends on the number of parameters estimated. The Guidelines are 5-10 times the estimated number of parameters.
3. Depends on the number of indicators used in the whole latent variable. The number of samples is the number of indicators multiplied by 5-10
This study has 22 indicators, so based on the third point above the sample size is between 105-147, and the author decided to take 110 samples (5 multiplied by 22) to anticipate the unacceptable samples.

The Partial Least Square (PLS) method was used as hypothesis testing in this study. The sample size is determined by purposive sampling. The number of samples in this study were 129 respondents who are from BUMDes in West Java, Central Java, East Java, Maluku, Central Sulawesi, Southeast Sulawesi, South Sulawesi, Lampung, North Sumatra, West Sumatra, Riau, Jambi, Bangka Belitung Islands, Central Kalimantan and West Kalimantan.

3. RESULTS AND DISCUSSION

3.1. Demographic Analysis

The respondents in this study were 129 respondents. The demographics of the respondents are shown in table 1 below.

<table>
<thead>
<tr>
<th>Category</th>
<th>Respondents</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>91</td>
<td>70.5%</td>
</tr>
<tr>
<td>Female</td>
<td>38</td>
<td>29.5%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 – 30 Years old</td>
<td>57</td>
<td>44.2%</td>
</tr>
<tr>
<td>31 – 40 Years old</td>
<td>39</td>
<td>30.2%</td>
</tr>
<tr>
<td>41 – 50 Years old</td>
<td>27</td>
<td>20.9%</td>
</tr>
<tr>
<td>&gt; 51 Years old</td>
<td>6</td>
<td>4.7%</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unmarried</td>
<td>44</td>
<td>34.1%</td>
</tr>
<tr>
<td>Married</td>
<td>85</td>
<td>65.9%</td>
</tr>
<tr>
<td>Level of Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>4</td>
<td>3.1%</td>
</tr>
<tr>
<td>Junior secondary</td>
<td>39</td>
<td>30.2%</td>
</tr>
<tr>
<td>Senior secondary</td>
<td>7</td>
<td>5.4%</td>
</tr>
<tr>
<td>Diploma</td>
<td>6</td>
<td>4.7%</td>
</tr>
<tr>
<td>Bachelor</td>
<td>65</td>
<td>50.4%</td>
</tr>
<tr>
<td>Magister</td>
<td>7</td>
<td>5.4%</td>
</tr>
<tr>
<td>Doctoral</td>
<td>1</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

Source: Primary data, 2020

Based on the table above about the demographics of the respondents, the majority of respondents in this research were men (70.5%) compared to women (29.5%). Then for age, most of the respondents was at the age of 20-30 years (44.2%) followed by the ages of 31 - 40...
years (30.2%) and the ages of 41 - 50 years (20.9%). At the level of education, most respondents received higher education S1 (50.4%) followed by junior high school education (30.2%). Overall, the demographics of respondents are respondents who have entered the productive age of work, they are mature in making decisions and have a good higher education background.

3.2. Measurement Model Assessment

Discriminant and convergent validity test was tested using loading factors (FL), average variance extracted (AVE) and composite reliability (CR) values (Cheah et al., 2018). Although each measure's decision value varies, the FL value must be greater than or equal to 0.70 or more than 0.50, and alpha and CR values that are between 0.60 and 0.70 are acceptable (Hair et al., 2017). The acceptable AVE value must be 0.50 or greater (Cheah et al., 2018) by comparing the cross loading value for each construct in the relevant rows and columns (Hair et al., 2017). All values are in the range of 0.5 to 0.7, except for removed items due to lower factors that are overload, and further analysis was carried out. The values of all constructs indicate the validity, consistency, and accuracy of a good measurement model. Discriminant validity was then tested using the Heterotrait - Monotrait (HTMT) ratio based on the specified criteria (Franke dan Sarstedt, 2019). As shown in Table 2 below, all the ratios are within the range. The convergent validity was confirmed through the Fornell-Lacker criterion and all values fell within the specified ranges and criteria.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Discriminant Validity (HTMT Ratios)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Customer Capital</td>
</tr>
<tr>
<td>2</td>
<td>Human Capital</td>
</tr>
<tr>
<td>3</td>
<td>Organizational Capital</td>
</tr>
<tr>
<td>4</td>
<td>Performance</td>
</tr>
<tr>
<td>5</td>
<td>Spiritual Capital</td>
</tr>
<tr>
<td>6</td>
<td>Technology Capital</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2020

3.3. Structural model assessment

Structural model estimation was conducted through analysis. The test, which was done consisted of estimating VIF, R2, Beta and using the t-value for the hypothesis assessment of the bootstrap process. A bootstrap with a subsample of 5,000 to increase the statistical significance of item weight and was done based on statistical guidelines (Cheah et al., 2018).
VIF measures the extent to which multicollinearity problems bias the regression results. Values above 5 illustrate the collinearity problem among the items of variables (Bernarto et al., 2020). The value of R2 showed the change in the response variable due to the endogenous variables. In addition, the higher R2 value will meet the predictive accuracy (ranging from 0 to 1).

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Beta</th>
<th>P Values</th>
<th>Keputusan</th>
<th>VIF</th>
<th>R2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Capital (X1) -&gt; Performance</td>
<td>0.115</td>
<td>0.072**</td>
<td>Having positive influence</td>
<td>2.215</td>
<td>0.676</td>
</tr>
<tr>
<td>Customer Capital (X2) -&gt; Performance</td>
<td>0.254</td>
<td>0.001*</td>
<td>Having positive influence</td>
<td>2.470</td>
<td></td>
</tr>
<tr>
<td>Technology Capital (X3) -&gt; Performance</td>
<td>0.384</td>
<td>0.000*</td>
<td>Having Positive Influence</td>
<td>3.608</td>
<td></td>
</tr>
<tr>
<td>Organizational Capital (X4) -&gt; Performance</td>
<td>0.118</td>
<td>0.189</td>
<td>There is no influence</td>
<td>2.648</td>
<td></td>
</tr>
<tr>
<td>Spiritual Capital (X5) -&gt; Performance</td>
<td>0.127</td>
<td>0.067**</td>
<td>Having positive influence</td>
<td>1.944</td>
<td></td>
</tr>
</tbody>
</table>

*significant at level 5%
**significant at level 10%

![Figure 2. Testing Model of Hypothesis](image)

The results of hypothesis test show that customer capital ($\beta = 0.254$, p-value = 0.001) and the technology capital ($\beta = 0.384$, p-value = 0.000) have a positive effect on performance.
at the 5% probability level. Then at the 10% probability level, (Hair et al., 2017), Human capital variables ($\beta = 0.115$, p-value = 0.072) and Spiritual Capital ($\beta = 0.127$, p-value = 0.067) have a positive influence on performance. The results of testing the Organizational Capital variable ($\beta = 0.118$, p-value = 0.189), it shows that there was no significant effect on performance. The value of R2 shows that all independent variables contribute to the dependent variable by 67%. The value of R2 shows the change in the response variable due to the endogenous variables. In addition, a higher R2 value will meet the predictive accuracy (ranging from 0 to 1) (Hair et al., 2017).

### 3.4. Customer Capital has a significant influence on performance

According to Saragih (2017), customer capital has a positive and significant effect on company performance. The value of customer capital (VACA) shows a significant and positive value on the performance of a manufacturing company. It shows that there is a good relationship between the company and consumers. The efforts of the company to provide services to consumers and give responses to some suggestions and criticisms submitted by consumers can increase consumer confidence in the company. This trust will make consumers loyal and still choose the products of the company itself. This significant and positive value means that the company maintains a good relationship with customers. The results of this study are also in line with the results of previous research, namely Soetedjo and Safrina (2014). It supports the results of this study that Customer Capital has a significant influence on performance. The customer loyalty of BUMDes is a precious intangible asset that can improve the performance BUMDes.

### 3.5. Technological Capital has a significant influence on performance

In Barkat et al., (2018) research regarding intellectual capital, innovation capability, and organizational performance in textile factories, technological capital is one indicator. Technological capital is measured by knowledge of ICT, R&D, and technology operational. The technological capital hypothesis test on organizational performance shows a significant direct and indirect influence and has a positive relationship. Through significant results, in this case, technology positively influences product innovation and process in textile factories in Pakistan. Technology is the link between customers and suppliers, both local and international. The role of technology can increase exports which have a domino effect on operational processes and fulfill consumers' needs. The results of this study are also in line with the results of the research was conducted by Hashim, Osman, and Alhabshi (2015) regarding intellectual capital in organizational performance in Malaysia. This study states that the technological capital hypothesis test results on organizational performance are significant
and have a positive relationship. From the results of those two previous researches, it can be concluded that this supports the results of this study that technological capital has an important role in improving the performance of BUMDes, including in terms of innovation and improving organizational relationship with consumers.

3.6. Organizational Capital does not influence performance

Prasetya, Utami, and Prasetya's (2016) research show that employees lack understanding about organizational capital readiness at PT PLN (Persero) Development Unit VIII Surabaya. Therefore, the implementation of organizational capital readiness must be continuously monitored in its performance. The target of organizational capital readiness for PT PLN (Persero), Surabaya VIII Development Main Unit always matches or exceeds the target. It can be concluded from the results of research conducted in this study and previous research that organizational capital does not influence performance. Because the organizational structure of BUMDes is not clear yet, and no clear rules are organizing the organizational structure of BUMDes and its division of work, it does not affect the performance BUMDes.

3.7. Spiritual Capital Influence Performance

The results of this research indicate that spiritual capital has a positive influence on performance. This research is in line with several other studies done by Nasrullah and Pohan (2020), showing that spiritual capital has a significant and positive influence on performance in manufacturing companies. The results of this study are also in line with the research of Ariyanto and Chalil (2017); Djafri and Noordin (2017); Moghadam and Makvandi (2019). The positive influence between spiritual capital on the performance of BUMDes can not be separated from the culture of the BUMDes community. Spiritual values in their life and these values also impact some activities or jobs at BUMDes because BUMDes are managed with the principles of cooperation and mutual communal work.

4. CONCLUSION AND IMPLICATIONS

Based on the results of this research, it can be concluded that (1) the SDM/ HR (human resource) factor has no significant impact yet on the performance of BUMDes because it needs support from the government and the community; (2) BUMDes is not able to provide strength through the creation of a brand or image in the eyes of consumers/visitors; (3) Spiritual influence does not have a significant influence on the performance of BUMDes because it still chooses rationality; (4) Technology which has been used in BUMDes operation is not
maximally applied to support performance; and as an organization the BUMDes, it cannot stand alone / independently because they still rely on the assistance from the village.

Therefore, researchers here suggest involving village residents in the formation of existing tourism BUMDes. There must be a support from village officials or local government in BUMDes, which can be further enhanced through guidance and consolidation between villages and BUMDes, then in dealing with COVID-19, BUMDes need to increase creativity and innovation to survive and develop.

4.1. Acknowledgment

We are grateful to the Institute of Research and Community Service of Universitas Terbuka for providing funds for the continuation of this research.

REFERENCES


Ministry of Tourism and Creative Economy (2020) Ministry of Tourism and Creative Economy Strategic Plan 2020-2024, MoTCE.


