Effect of Intellectual Capital on Organizational Performance Moderated by Cultural

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Abstract

This study analyzes Organizational Performance which is the influenced by intellectual Capital moderated by culture. The method used in this research is by surveying and distributing questionnaires based on the time horizon using a cross section study. The population manufacturing companies in MM2100 area using convenience sampling. Regression analysis and inferential statistics, descriptive statistics is used by data analysis technique. The intellectual shows positive and significant impact on organizational performance and cultural as a moderating effect in this results. This research imply that by increasing intellectual and cultural Capital will be more effective on improving organizational performance.

Keywords

Intellectual Capital, Organizational Performance and Cultural.

Introduction

The potential for business success depends on organizational performance in implementing strategies to achieve institutional goals (Farouk at. Al, 2016). Organizational performance is a description of the work of an organization in achieving its goals (Burridge at. Al, 2008). Organizational performance can also be interpreted as the success of personnel, teams or organizations in realizing predetermined strategic goals (Carmeli, & Tishler, 2004). Organizational performance is largely cggendent on the skill level of its leaders in implementing strategy. The essence of leadership is the establishment of a good relationship between superiors and subordinates.
In an organization there are always obstacles to achieving its goals (Kontoghiorghes, 2016). Organizational performance also depends on employees who are an important part of achieving organizational goals. This concept of leadership is often included in the context of virtual teams (Fores, & Camison 2016).

One of the factors that affect the organization is the intellectual Capital which is one of the important assets in a knowledge-based economy (Bontis, Keow, & Richardson, 2000). In addition, the incorporation of intangible assets is also known as intellectual capital - markets, intellectual property, people and infrastructure to enable companies to carry out their functions (De Pablos, 2003). The developed intellectual Capital is divided into two groups, namely non-monetary (non-financial) measuremgt and monetary measurements (Abeysekera, 2007). Intellectual capital can be characterized by utilizing intangible resources efficiently according to the knowledge of resources and capabilities combined with real Capital and generating added value for the organization (Edvinsson & Sullivan, 1996; Bontis, 2001).

The next factor is cultural. Culture is a collective thought program that differentiates members of one group (Muhammad at. Al, 2012). Organizational culture can also be defined as the philosophy that underlies organizational policies, rules of the game for association, and feelings brought about by the physical preparation of the organization (Linnenluecke & Griffiths, 2010). Another opinion also explains that Organizational culture is a guideline for achieving organizational goals that directs employees to behave, provides direction and action in making decisions. (Ravasi, & Schultz, 2006). Organizational culture elements include values, beliefs, basic principles, and management practices (Carmeli, & Tishler, 2004).

Studies on intellectual Capital, organizational performance, and cultural relationships have been widely researched (Petty, & Guthrie, 2000; Guthrie, & Petty, 2000; Richard, Devinney, & Johnson, 2009; Lesser, & Storck, 2001; Linnenluecke, MK, & Griffiths, A. (2010). Previous research generally explained two variables, not all variables were studied together. Therefore, this study aims to determine organizational performance that is influenced by culturally moderated Intellectual Capital. Policy makers in developing organizational performance can also use this research as input.

**Research Methods**

The data collection method used in this research was survey and questionnaire distribution based on the time horizon using a cross section study. The population in this study were
all 173 manufacturing companies in the MM2100 area. Taking the sample using
to the right place and time, this sample was selected

Measuring the level of *intellectual Capital* uses measurement indicators (Lin & Edvinsson, 2013) of human, market, process and renewal Capital, then the measurement of human Capital is developed, namely structural Capital and relational Capital (Bontis, 2013). To measure the level of *organizational performance* using measurement indicators of output quality (product / Service), implementation of introduction of new products / Services, new procedures or practices, operating efficiency, operating effectiveness and level of customer satisfaction (Walker & Boyne, 2006; Griffin et al., 2007; Baker & Sinkula, 1999; Nuhu, 2016). Meanwhile, to measure the *cultural* level using measurement indicators from (Hofstede, 2010), namely avoidance of uncertainty, distance of power, individualism versus collectivism, femininity versus masculinity, short-term versus long-term orientation, indulgence versus restraint and technological modernization.

This analyzed using descriptive statistics and inferential statistics. This study uses a 5-point Likert scale scoring system to analyze the data that has been collected from strongly disagree (1) to strongly agree (5) by giving a score or value to get interval data. The research model as shown in Figure 1 uses the multiple regression hypothesis Moderate Regression Analysis (MRA) through validity and reliability tests.

![Figure 1 Research Model (Hofstede, 2010)](http://www.webology.org)

**Results and Discussion**

**Overview of Intellectual Capital, Organizational Performance and Cultural Levels**

The level of organizational performance in this study is an independent variable, while the level of intellectual Capital and cultural is the dependent variable. The results were obtained based on the overall organizational performance statement consisting of 31
statements, intellectual Capital consisting of 6 statement and cultural consisting of 35 statements. In detail, the scores for each variable can be seen in Table 1 and Table 2.

Table 1 Score of Intellectual Capital, Organizational Performance, and Cultural Level.

<table>
<thead>
<tr>
<th>SCORE</th>
<th>Total Items</th>
<th>Very disagree</th>
<th>Disagree</th>
<th>Doubt</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Score total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score Of Intellectual capital level</td>
<td>31</td>
<td>248</td>
<td>992</td>
<td>2976</td>
<td>4960</td>
<td>11935</td>
<td>21111</td>
</tr>
<tr>
<td>Organizational Performance Level</td>
<td>6</td>
<td>72</td>
<td>240</td>
<td>180</td>
<td>1104</td>
<td>2550</td>
<td>4146</td>
</tr>
<tr>
<td>Culture Level Score</td>
<td>35</td>
<td>525</td>
<td>700</td>
<td>4725</td>
<td>4480</td>
<td>12425</td>
<td>22855</td>
</tr>
</tbody>
</table>

Source: Informant statement

Table 2 Category of Intellectual Capital, Organizational Performance and Cultural Level

<table>
<thead>
<tr>
<th>Category</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category of Intellectual Capital Level</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>&gt;20766</td>
</tr>
<tr>
<td>Medium</td>
<td>18373 - 20766</td>
</tr>
<tr>
<td>Low</td>
<td>&lt; 18373</td>
</tr>
<tr>
<td>Category Organizational Performance Level</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>&gt; 4087</td>
</tr>
<tr>
<td>Medium</td>
<td>3262 - 4087</td>
</tr>
<tr>
<td>Low</td>
<td>&lt; 3262</td>
</tr>
<tr>
<td>Culture Level Category</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>&gt; 2009</td>
</tr>
<tr>
<td>Medium</td>
<td>1794 - 2009</td>
</tr>
<tr>
<td>Low</td>
<td>&lt; 1794</td>
</tr>
</tbody>
</table>

Source: Informant statement

Based on Table 1 and Table 2, this shows that the level of Intellectual Capital is included in the high-level category with a range of 21111. This category shows that employees have human, process, market and renewal Capital and structural and relational Capital. In addition, Tables 1 and 2 show that the level of organizational performance is in the high category with a total score of 4146. In this category, employees get quality output (products/services), new practices or procedures, introduction of new products / Services, operation efficiency, operation effectiveness and customer satisfaction level. Finally, Tables 1 and 2 show that the cultural level is in the high category with a total score of 22855. In this category, in this category it is shown that students have a cultural level such as the measurement indicator from (Hofstede, 2010).
MRA Statistical Analysis Test Results

Table 3 Results of the Regression Equation on the Effect of Intellectual Capital on Organizational Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>0.427</td>
<td>0.303</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>12.120</td>
<td>1.821</td>
<td>7.241</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual Capital</td>
<td>0.541</td>
<td>0.0471</td>
<td>0.524</td>
<td>11.167</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Informant statement*

Table 4 Intellectual Capital and Organizational Performance (Results of Hierarchical Regression Effects of Cultural Moderation)

<table>
<thead>
<tr>
<th>Model</th>
<th>(RP)</th>
<th>R² (Adjusted R²)</th>
<th>R² Change (P)</th>
<th>B</th>
<th>Std.Error</th>
<th>Beta</th>
<th>(F) t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>0.6561</td>
<td>0.415</td>
<td>0.471</td>
<td>11.148</td>
<td>0.149</td>
<td>5.188</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>(0.000)</td>
<td>(0.557)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>0.506</td>
<td>0.057</td>
<td>0.493</td>
<td>8.902</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mi</td>
<td>0.317</td>
<td>0.068</td>
<td>0.259</td>
<td>4.676</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>0.694</td>
<td>0.483</td>
<td>0.492</td>
<td>12.487</td>
<td>0.681</td>
<td>1.380</td>
<td>0.019</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>(0.041)</td>
<td>(0.475)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>0.411</td>
<td>0.223</td>
<td>0.509</td>
<td>2.341</td>
<td>0.020</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mi</td>
<td>0.222</td>
<td>0.232</td>
<td>0.273</td>
<td>1.434</td>
<td>0.023</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X*Mi</td>
<td>0.103</td>
<td>0.216</td>
<td>0.226</td>
<td>1.974</td>
<td>0.041</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Informant statement*

Based on Table 3, it can be seen that the regression equation 1 obtained in this study is

\[
Y = 12.120 + 0.541X
\]

Based on this equation, it can be seen that:

1. A constant of 12,120 States that when the intellectual Capital variable is 0, the employee's organizational performance is 12,120.
2. The regression coefficient for the intellectual Capital variable is 0.541 in a positive direction, meaning that every addition in the value of the intellectual Capital variable will cause an increase in the organizational performance variable.

The coefficient of determination (R²) is used to see the magnitude of the influence together with the exogenous variables in the analyzed model is 0.303, which means that 30.3% of intellectual variables have an influence on organizational performance variables,
while 69.70 are variables outside of this study. Based on Table 4 it can be seen that the regression equation 2 obtained in this study is,

\[ Y = 12.487 + 0.411X + 0.222M^2 + 0.103XM^2 \]

Based on this equation, it can be seen that:

1. A constant of 12,487 States that when the intellectual Capital variable is 0, the student organizational performance is 12,487.
2. The regression coefficient for the intellectual Capital variable is 0.411X in a positive direction, meaning that every addition in| the value of the intellectual Capital variable will cause an increase in the organizational performance variable.
3. The regression coefficient for the cultural variables is 0.222 with a positive direction, meaning that any added value to the cultural variable will cause an increase in organizational performance variables.

The regression coefficient for the moderating variable or the result of the interaction between intellectual and cultural Capital is 0.103 in a positive direction, meaning that any increase in the value of the mediating variable will cause an increase in organizational performance variables.

The Influence of Intellectual Capital on Organizational Performance

The results of this study indicate that intellectual Capital affects organizational performance in line with the results of research which states that countries with dense industries are predicted to be winners in wealth creation in the future (Bounfour & Edvinsson. 2004). Because in practice, Indonesia is still in the process of developing, so that many developed countries still have solid knowledge. Organizational performance is the result that the organization wants from the behavior of the people in it (Richard, Devinney, Yip, & Johnson, 2009).

The way that must be done to improve organizational performance is to motivate employees to be willing and able to maximize production and always communicate. Apart from that, also by increasing intellectual Capital. Intellectual capital is used to generate higher value assets through materials that have been compiled and captured (Ulum, Rizqiyah, & Jati, 2016). Because Intellectual Capital can be used to create wealth through information, knowledge, intellectual property and experience (Martinez and Garcia-Meca, 2005). This intellectual Capital consists of components of human, structural and customer Capital (Edvinsson and Malone, 1997).
**Cultural can Moderate the Influence of Intellectual Capital on Organizational Performance**

The research findings show that intellectual Capital has a positive and significant influence on organizational performance and cultural mediates the influence of both. The results of this study are in accordance with the research conducted by Ling (2013) and Ling (2011). Intellectual Capital in economic theories has different definitions. Therefore, the only most neutral definition is a debate about "the intangible assets in the economy and Capital assumptions that create intellectual property (Bontis, 2001). In addition, culture can influence decision making as a psychological factor in (Salter, 2012 system State financial reporting (Zarzeski, 1996), the concept of leadership (House et al., 2004) and how resources are allocated (Stulz and Williamson, 2003).

**Conclusion**

Based on the results of analysis and data processing, it is concluded that the level of intellectual Capital, organizational performance, and culture is in the very high category. Intellectual Capital has a positive and significant effect on the results of this study on organizational performance is proven true and culture is able to strengthen the relationship between the two. This shows that the level of intellectual Capital and culture will better affect organizational performance, so that intellectual and cultural Capital skills need to be improved.

**References**


