The Roles of Intangible Assets on the Performance of Creative Industry MSMEs in Jambi City, Indonesia

Amril Amril, Hardiani Hardiani, Junaidi Junaidi

Abstract—This study aims to: 1) Analyze the condition of intangible assets, especially human capital and social capital in the creative industry MSMEs in Jambi City; 2) Analyze the performance of creative industry MSMEs in Jambi City; 3) Analyze the role of intangible assets on the performance of creative industry MSMEs in Jambi City. Data used are from a survey on creative industry MSMEs in Jambi City. This study also used secondary data related to creative industry. Data were analyzed in qualitative descriptive and quantitative descriptive method, using Structural Equation Modeling Partial Least Square (SEMPLS). The results found that: 1) Human capital condition of creative industry MSMEs in Jambi City was relatively good. This is reflected in the workers who are relatively young, have good education, and have quite long years' work experience. Based on the gender, creative industry MSME workers in Jambi City are dominated by male workers; 2) Overall, social capital of workers in MSMEs is in the category "high". Based on its dimensions, dimension with the highest value is structural dimensions, while dimension with the lowest value is cognitive dimensions; 3) Overall, workers' perceptions on creative industry MSME performance in Jambi City is in the category "high". MSME performance represented by two variables has high value for both variables. Even so, workers assume innovation has a more important role in representing MSME performance because it has the highest value; 4) Human capital and social capitals have a significant effect on the performance of creative industry MSMEs. Even so, social capital does not play a role either as a moderating variable or an intervening variable between human capital and performance.

Index Terms—Business performance, Creative industry, Human capital, Social capital.

1 INTRODUCTION

The development of creative industries in Indonesia has only begun to develop rapidly since 2012. However, today, it is estimated that creative industry in Indonesia has increased nearly three times compared to its initial conditions. This is reflected in the growth of creative industry business units, employment, and capacity of creativity. The development has had a positive impact on Indonesia's economy and is expected to be more capable and have the potential to increase economic growth and welfare in the future. Therefore, various policies should be intensified in order to improve the quality and quantity of creative industries. To face competition in the global era and free trade, creative industry is required to continuously improve its performance, so that it has strong competitiveness. Creative industry is said to have global competitiveness if it is able to operate reliably, in balance, and in high standards. According to Wirawan [1], the performance of an organization is shown by the output produced by the functions or indicators of a job or a profession within a certain time. Performance improvement, according to Endri [2], has been associated more with tangible assets so far. It is supported by previous studies that showed a strong significance between physical assets and performance. However, intangible asset basically is the driving force of physical asset value. There are various types of intangible assets that determine a business performance. One of the main assets of intangible assets is human resources. Creative industries have developed rapidly in Jambi City as well as in other regions in Indonesia, and play an important role in people's economy of the region. Those creative industries are mainly found in MSMEs. Data for 2018 shows that there were 1,342 MSME business units in Jambi City, producing various types of products and services. Considering the development and importance of role of creative industry, further studies need to be carried out so that the competitiveness of creative economy MSMEs in Jambi City can be further increased. This study specifically aims to analyze: 1) the intangible assets condition, especially human capital and social capital, in creative industry MSMEs in Jambi City; 2) performance of Creative industry MSMEs in Jambi City; 3) the role of intangible assets on the performance of Creative industry MSMEs in Jambi City.

2 LITERATURE REVIEW

2.1 Creative Industry

Howkins in Nenny [3] defined creative economy as "economic activities whose input and output are ideas". Simatupang et al. [4] defined creative industry as "industry focused on the manufacture and exploitation of intellectual property". Ministry of Trade of the Republic of Indonesia defined creative industries as "Industries which have their origin in individual creativity, skill and talent, and which have a potential for wealth and job creation through the generation and exploitation of intellectual property". Ministry of Trade of the Republic of Indonesia has mapped the creative industries into 14 subsectors, namely: advertising services, architecture, arts and antiques market, crafts, design, fashion, video, film and photography, interactive games, music, performing arts, printing and publishing, computer services and software, culinary, television and radio, and research and development.

2.2 Intangible Assets

Basically there are various intangible assets supporting the performance of a business. However, this study focused on one of the main assets, namely human resources represented

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through human capital and social capital in human resources. Ongkoranhardjo et al. [5] stated “human capital is a combination of knowledge, skills, innovation, and individual ability to carry out their duties so as to create a value to achieve organizational goals”. In this context, human capital can be assessed from education, training, experience, and individual characteristics in human resources. Social capital is part of human capital in addition to knowledge and skills [6]. Social capital is a social and economic networking in community between individuals and groups [7]. It is considered as part of the ability of human resources to associate with each other to achieve common goals in a group and organization. Coleman in Field [8] defined social capital as the ability of people to work together for common purposes in groups or organizations.

Nahapiet and Ghoshal [9] stated that social capital consists of three dimensions, namely:

1. Structural Dimension: the embodiment of social interaction ties which refers to the relation pattern among parties and deals with who you reach and how you reach them.
2. Relational Dimension: the nature and type of personal relationships based on trust and social exchange, namely the existence of mutual trust, reciprocity, obligations, and expectations as well as a sense of togetherness and concern for others.
3. Cognitive Dimension: manifestation of resources providing shared representations, interpretations, and systems of meaning among parties. This dimension represents important value/asset of social capital.

2.3 Organization Performance

Benard and Russel in Nasution [10] emphasized performance as the record of outcomes produced on a specified job function or activity during a specified time period. Dokko [11] stated performance indicators are productivity and innovation. Productivity is an aspect of performance about how much and how fast a job can be completed. Innovation is an aspect of worker to look forward and make a change to improve their performance.

Nowadays, innovation has been widely recognized as one of the prime movers of economic development thus increasing interest in learning innovation process [12]. Innovation is a central theme in the business world in a changing environment. Companies that want to survive in a business competition must be able to innovate and manage their resources to get a competitive advantage for the company.

2.4 Role of Intangible Assets on Business Performance: previous studies

Intangible resources are considered to play an important role in companies in the creation of value and business success [13]. This is because intangible resources are inflexible so it will be more difficult to imitate than flexible tangible resources [14]. Intangible resources are considered as important factors in the long-term success and company competitiveness [15]. Study of Galbreath [16] and (2005) and of Hitt et al. [17] also revealed that intangible resources contribute more to a company’s success and are more likely to create competitive advantages than tangible resources. Unlike financial and physical resources, intangible resources are being hard for competitors to imitate and powerful sources of sustainable competitive advantage [18]. Empirical researches that have been done so far, related to intangible resources, mainly link these resources directly to the sustainable competitive advantage [19], and their impacts on performance or profitability [20], [21]. Meanwhile some studies showed that good performance of a company can be achieved if there is innovation made by the company [22], [23]. This shows that the series of innovations has antecedents and consequences. Luoma-Aho and Halonen’s [24] study revealed the central role of intangible assets in innovation process. Therefore, intangible resources will have a more specific impact on innovation than on performance and sustainable competitive advantage.

2 RESEARCH METHODS

Main data in this study are primary data from Creative industry MSMEs actors in Jambi City. Populations in the study were all creative industry MSMEs in Jambi City and listed by its business type according to the data from Cooperative and Industry Office Jambi City. From each type of creative industry MSMEs, the number of sampling units is determined and is proportional to the number of business units by random sampling. Total sample of creative industry MSMEs is 30 units of creative industry MSMEs. Out of the total, 90 workers as samples are chosen. Furthermore, data collection is carried out through in-depth interviews and questionnaires.

To analyze the condition of intangible assets (human capital and social capital) as well as industry performance, descriptive statistical analysis and single frequency tables were carried out. To analyze the role of intangible assets on the performance of creative industry MSMEs, analysis was carried out using Structural Equation Modeling Partial Least Square (SEM-PLS) with initial model framework as Fig. 1:

Based on model 1 (initial model), two models are developed, namely: 1) a model in which social capital becomes the moderating variable between human capital and performance (model 2); 2) a model in which social capital becomes the intervening variable between human capital and performance (model 3).

![Fig. 1. Model 1 (initial model) of the role of intangible assets (human capital and social capital) on the performance of creative industry MSMEs](image)

Assessment of variables and indicators are given as follows:

**Human capital:** assessed through individual characteristics of creative industry MSMEs workers in three indicators:

1. Gender (MS): in dummy variables (1=male, 0=female)
2. Age (MU): on an ordinal scale, with categories: 15-24 years old = 1, 25-34 years old = 2, 35 years old and above = 3
3. Formal education (MF): classified into: Elementary School (SD/Sekolah Dasar) or lower level = 1, Junior High School (SLTP/Sekolah Lanjutan Tingkat Pertama) = 3, Senior High School (SLTA/Sekolah Lanjutan Tingkat Atas) = 3, University = 4
4. Years of Work Experience (MB): classified into: less than 1 year = 1, 1-2 years = 2, more than 2 years = 3

Social capital: assessed in three indicators [8], namely:
1. Structural dimension: concerns the properties of the social systems and of network of relations as a whole. Measured through four questions on a Likert scale.
2. Relational dimension: concerns the kind of personal relationships people have developed with each other through a history of interactions. Measured through seven questions on a Likert scale.
3. Cognitive dimension: refers to those sources providing shared representations, interpretations, and systems of meaning among parties. Measured through six questions on a Likert scale.

Performance: assessed in two indicators [10], namely:
1. Productivity: is an aspect of performance about how much and how fast a job can be completed. Measured through four questions on a Likert scale.
2. Innovation: is an aspect of creative industry MSME actors to look forward and make changes to improve their performance. Measured through three questions on a Likert scale.

3 RESULTS AND DISCUSSION

3.1 Human capital of creative industry MSMEs in Jambi City
Based on gender, creative industry MSME workers in Jambi City are dominated by men. Of the total workers, 68.89 percent are men and only 31.11 percent are women. Workers are relatively young and almost half of them are in group of 24 years old and below.
Level of education of workers is also relatively good. Only 27.78 percent of the workers have only graduated from junior high school and lower education level. More than half (60.00 percent) of them have graduated from high school (general and vocational school) and 12.22 percent of them have graduated from university. Furthermore, in terms of work experience, only one third (33.33 percent) had worked less than 1 year. Most of them (66.67 percent) had worked for 1-2 years or more than 2 years.

3.2 Social capital
Overall, social capital of MSME workers is in the category “high”, with an average score of 3.85. Based on its dimensions, one with the highest value is structural dimension. The highest value in structural dimension is from the existence of “communication and cooperation with colleagues in the same department”, while the lowest value is from “structural position does not become a barrier in communications in the SME” (Table 1).

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>WORKERS’ PERCEPTION ON SOCIAL CAPITAL IN CREATIVE INDUSTRY MSMES IN JAMBI CITY IN 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension and sub-dimension</td>
<td>Score</td>
</tr>
<tr>
<td>Structural dimensions</td>
<td></td>
</tr>
<tr>
<td>Have communication and cooperation with co-workers in the same department</td>
<td>3.92</td>
</tr>
<tr>
<td>Have communication and cooperation with co-workers in different department</td>
<td>4.34</td>
</tr>
<tr>
<td>Always participate in resolving conflicts that arise within the SME</td>
<td>4.02</td>
</tr>
<tr>
<td>Information distributed evenly across all levels of employee in the SME</td>
<td>3.79</td>
</tr>
<tr>
<td>Structural position does not become a barrier in communication in the SME</td>
<td>3.67</td>
</tr>
<tr>
<td>Relational dimensions</td>
<td></td>
</tr>
<tr>
<td>Always have the same enthusiasm with co-workers</td>
<td>3.71</td>
</tr>
<tr>
<td>Always have the same understanding as co-workers</td>
<td>4.27</td>
</tr>
<tr>
<td>Always share stories and knowledge with co-workers</td>
<td>3.88</td>
</tr>
<tr>
<td>Always share the skills I have with co-workers</td>
<td>3.90</td>
</tr>
<tr>
<td>Always work to achieve the goals set by the SME</td>
<td>4.12</td>
</tr>
<tr>
<td>Always have the same understanding as co-workers about the goals of the SME</td>
<td>3.60</td>
</tr>
<tr>
<td>Always have the same enthusiasm with co-workers in reaching company’s vision, mission, and goals</td>
<td>3.82</td>
</tr>
<tr>
<td>Cognitive dimensions</td>
<td></td>
</tr>
<tr>
<td>Always use words (terms) understood by my co-workers in communication</td>
<td>3.48</td>
</tr>
<tr>
<td>Always share stories and knowledge with co-workers</td>
<td>3.70</td>
</tr>
<tr>
<td>Always share the skills I have with co-workers</td>
<td>3.90</td>
</tr>
<tr>
<td>Always work to achieve the goals set by the SME</td>
<td>4.12</td>
</tr>
<tr>
<td>Always have the same understanding as co-workers about the goals of the SME</td>
<td>3.60</td>
</tr>
<tr>
<td>Always have the same enthusiasm with co-workers in reaching company’s vision, mission, and goals</td>
<td>3.82</td>
</tr>
<tr>
<td>Average score of social capital</td>
<td>3.85</td>
</tr>
</tbody>
</table>

Note: categorized into 1 – 2.33= low, 2.34 – 3.67=medium, 3.68 – 5.00= high

Dimension with the lowest score of social capital in creative industry MSMEs is cognitive dimension. Based on its sub-dimensions, the highest score is for “always work to achieve the goals set by the SME”, while the lowest score is for “always use words (terms) understood by my co-workers in communication”.

3.3 Performance of MSMEs
Overall, workers’ perception of the performance of creative industry MSMEs in Jambi City in a category “high”, with an average score of 3.98. Even so, workers assume innovation has a more important role in representing the performance of MSMEs because it has the highest value of 4.12 (Table 2).

<table>
<thead>
<tr>
<th>TABLE 2</th>
<th>WORKERS’ PERCEPTION ON THE PERFORMANCE OF CREATIVE INDUSTRY MSMES IN JAMBI CITY IN 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables and indicators</td>
<td>Score</td>
</tr>
<tr>
<td>Productivity</td>
<td>3.88</td>
</tr>
<tr>
<td>Able to complete tasks on time</td>
<td>4.00</td>
</tr>
<tr>
<td>Result-oriented employees</td>
<td>4.00</td>
</tr>
<tr>
<td>Willing to make more effort to achieve maximum results</td>
<td>4.16</td>
</tr>
<tr>
<td>Innovation</td>
<td>4.12</td>
</tr>
<tr>
<td>Prefer to do work in a simpler way</td>
<td>3.76</td>
</tr>
<tr>
<td>If there is a mismatch in the process, immediately fix it</td>
<td>4.27</td>
</tr>
</tbody>
</table>
Willing to change the way of working in order to maximize the results 4.34

Average score of performance 3.98

Note: categorized into 1 – 2.33= low, 2.34 – 3.67=medium, 3.68 – 5.00= high

3.4 Influence of social capital and human capital on the performance of creative industry MSMEs

Prior to conducting the analysis, an assessment of the initial model was done first because it was linked to indicators' validity and reliability on its latent (construct) variable. Convergent test and discriminant validity of the indicators were used in validity test. Reliability test utilizes two criteria: composite reliability and Cronbach's alpha. The convergent validity test is based on the correlation between the scores of item and the scores of construct. If its correlation (loading value) > 0.50, then the indicator is valid. The convergent validity test is done by looking at R-square value of 0.510 was obtained. Thus the model fits in the category “moderate”.

Based on Table 4, both human capital and social capital have influenced the performance of creative industry MSMEs in Jambi City. It shows that in order to improve the performance of creative industry MSMEs in Jambi City, quantity and quality of tangible assets (capital, equipment, and others). The convergent validity test is done by looking at R-square value of 0.510 was obtained. Thus the model fits in the category “moderate”.

<table>
<thead>
<tr>
<th>TABLE 4</th>
<th>HYPOTHESIS TESTING OF MODEL 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Sample O</td>
<td>Sample Mean (M)</td>
</tr>
<tr>
<td>Human cap. -&gt; Perf.</td>
<td>0.245</td>
</tr>
<tr>
<td>Social cap. -&gt; Perf.</td>
<td>0.573</td>
</tr>
</tbody>
</table>

Goodness-of-fit evaluation of the model was done by looking at R-square value. Structural model with a R-square value of 0.67 indicates that the model is “good”, 0.33 suggests that the model is “moderate”, and 0.19 implies that the model is “weak”. Based on the assessment, the R-square value of the model is 0.425. Thus the model fits in the category “moderate”. Furthermore, hypothesis testing of model 1 is given in Table 4:

Based on calculations, an R-square value of 0.510 was obtained. Thus the model fits in the category “moderate”. Hypothesis testing of model 2 is given in Table 5.

<table>
<thead>
<tr>
<th>TABLE 5</th>
<th>HYPOTHESIS TESTING OF MODEL 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Sample O</td>
<td>Sample Mean (M)</td>
</tr>
</tbody>
</table>

Human Capital 0.132 0.605 1.000 0.798 0.878

AVE 0.465 0.786 0.706

Based on calculations, an R-square value of 0.510 was obtained. Thus the model fits in the category “moderate”. Hypothesis testing of model 2 is given in Table 5.
Based on Table 5, both human capital and social capital had influenced the performance of creative industry MSMEs in Jambi City. However, social capital as moderating variable (human capital x social capital) between human capital and performance does not demonstrate a meaningful impact. As such, social capital only influences performance directly, but not as moderating variable between human capital and performance.

Influence of Social Capital and Human Capital on the Performance of Creative Industry MSMEs with Social Capital as Intervening Variable

Model of influence of human capital on the performance of creative industry MSMEs with social capital as intervening variable is given in Fig. 4.

![Fig. 4. Testing of Model 3](image)

Based on calculations, R-square value for performance is 0.426 and R-square value for social value is 0.21. Thus the model for performance fits in the category “moderate”, the model for social capital fits in the category “weak”. Hypothesis testing of model 3 is given in Table 6

![TABLE 6: HYPOTHESIS TESTING OF CORRELATION BETWEEN VARIABLES MODEL 3](table)

Based on Table 6, both human capital and social capital had influenced the performance of creative industry MSMEs in Jambi City. However, social capital as intervening variable between human capital and performance does not indicate noticeable effect. As such, social capital only has a direct effect on performance but not as an intervening between human capital and performance.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Condition of human capital in creative industry MSMEs in Jambi City is relatively good. This is shown in the characteristics of workers who are relatively young, have good level of education, and have quite long years’ work experience. Based on gender, workers in creative industry MSMEs in Jambi City are dominated by men. Overall, social capital in MSME workers is in the category “high”. Based on its dimensions, structural dimension has the highest value, while the lowest value is in cognitive dimension. Overall, workers’ perception on the performance of creative industry MSMEs in Jambi City is in the category “high”. MSME performance represented by two variables has high score for both variables. Even so, workers assume innovation has a more important role in representing the performance of MSMEs because it has the highest value. Human capital and social capital have a significant effect on the performance of creative industry MSMEs. Even so, social capital does not play a role either as moderating variable or intervening variable between human capital and performance.

4.2 Recommendations

Human capital and social capital as the representation of intangible assets have an important role in improving the performance of creative industry MSMEs. Therefore, it is recommended to both central government and local governments to formulate intensive policies on both intangible assets, not only on tangible assets such as capital and equipment.

For future research, it is recommended to combine tangible and intangible assets in one analysis model so that it can more comprehensively describe the role of each asset in the performance of creative industry MSMEs.

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