

# Influence of Intellectual Capital toward Micro Small and Medium Enterprises' (MSMEs') Performance in Malang City

Yudha Prakasa

Department of Business Administration  
University of Brawijaya  
Malang, Indonesia  
y.prakasa87@gmail.com

**Abstract**—The purpose of this study was to determine the effect of intellectual capital built on human capital, customer capital, structural capital, social capital, technology capital, and spiritual capital with the performance of MSMEs in Malang. The research method used in this study is survey and quantitative methods, with primary data obtained in Malang. The results of this study indicate that Malang is an industrial area where most industries are small and micro industries. However, like MSMEs in Indonesia in general the condition of MSMEs in Malang is not much different from the condition of MSMEs in other cities, most of which are not professionally managed, without clear management. These MSMEs must be able to grow rapidly if managed professionally. MSMEs in Malang are also divided into several centers or communities, 5 of which are the center of the rattan industry, the furniture industry, the Tempe chips industry, the ceramic industry, the industrial center and sanitation facilities. These five communities became the object of this research. The conclusion of this study is that MSME actors will produce high business performance if they are able to implement and increase their intellectual capital, namely, human capital, customer capital, structural capital, social capital, technology capital, and spiritual capital because higher performance will be produced. Social capital and spiritual capital are important components in improving the performance of MSMEs, considering that these two capitals have become the strength of MSME actors in carrying out their business, while structural capital (institutional) is a challenge that must be resolved by MSME actors.

**Keywords**—*intellectual capital; performance; MSMEs*

## I. INTRODUCTION

The research topic about the influence of intellectual capital toward the performance of MSMEs in Malang is important since MSMEs are is of the economic supporter that considered to be sufficient to help the economy of the community and absorbed many workers. The majority of MSMEs in Indonesia are family businesses therefore, the workforce is a family member. To anticipate these limitations, there are several qualitative criteria such as; management styles, personal characteristics, organizational characteristics, identification of sales, relationships with customers, production processes, research and development that can be used to distinguish

MSMEs from large companies [1]. Tambunan offers aspects of formality, organization and management, character of workers, level of mechanization or production systems, sources of raw materials and capital, and involvement of women in businesses to identify MSMEs condition in the Asian region. The formalities aspect indicates that MSMEs are an important component in the informal sector because the majority of MSMEs work in informal economy sector due to the inability of the formal economy to accommodate MSME activities. The informal sector refers to the economic sector whose economic activities depend on the subject of interpersonal relations and the overall activity is not recorded in official documents. Other characteristics of MSMEs are aspects of organization in which MSMEs is business entities that do not implement organizational governance properly. The main cause that it cannot be applied in organizational governance in MSMEs because the majority of MSMEs in Indonesia are family businesses so there is no separation between business assets and family assets. Another aspect that distinguishes MSMEs from large businesses is the personal characteristics of the owner or manager. MSMEs are generally managed by personal and workers who have limited education. The production process and market orientation of MSMEs also distinguish MSMEs from large scale businesses. MSMEs obtain local materials and use simple and market-oriented production technologies that cannot be met by large companies. The last aspect that distinguishes MSMEs from large companies is from the Gender aspect. Although according to Mead & Liedholm MSMEs managed by men are more sustainable than women [2], several research show that the majority of MSME actors are women [3]. This study uses six characteristics of intellectual capital they are human capital, customer capital, structural capital, social capital, technological capital, spiritual capital. Measuring the business performance of a company is important as a basis for the success of a business organization. Business performance can also be interpreted as entrepreneurial performance of a business organization.

Malang city is currently experiencing a decline in the performance of MSMEs, there are several factors that caused the decline in MSMEs performance such as the rarity of raw materials, the decline of public consumption level, lack of

government assistance and many other factors, such as MSME small and micro businesses are not professionally managed, without clear management that merely to support the family without thinking about how to perform in the future. Though, MSMEs should be able to grow rapidly if managed professionally.

Based on the research background that mentioned before, the formulation of the research problems in this research are:

- Does human capital have a significant influence toward the performance of MSMEs
- Does customer capital have a significant influence toward the performance of MSMEs
- Does structural capital have a significant influence toward the performance of MSMEs
- Does social capital have a significant influence toward the performance of MSMEs
- Does technology capital have a significant effect toward the performance of MSMEs
- Does spiritual capital have a significant influence toward the performance of MSMEs

## II. METHODS

This research uses survey and quantitative methods. In accordance with the research objectives, this research approach is explorative descriptive. The research finding is obtained by using primary data and collected by distributing questionnaires to MSME actors in 5 (five) MSMEs communities (rattan, furniture, Tempe chip, ceramics, and sanitaria) that located in Malang City with the total population are 324 business actors. Determination of samples using the Roscoe formulation, particularly at least 10 from the total of variables that utilized as a part of research, so that the total sample of 70 respondents. The sampling technique used simple random sampling, which means that random sampling with population characteristics that consist of categories or groups that are equal or parallel which are unexpectedly influential in the results of the study. Data analysis used Multiple Regression Analysis, was performed using a correlational analysis tool, which is a statistical analysis that sought to find relationships or influences between two or more variables. This study also uses a data scale from ordinal data namely qualitative data that has levels, such as education, position, rank, class ranking, and so on. Stages of data analysis includes:

- Data Coding
- Data Entering
- Data Cleaning
- Data Output
- Data Analyzing
- Hypothesis testing

## III. RESULTS

### *A. Does Human Capital have a Significant Influence toward the Performance of MSMEs*

The results of this study indicate that human capital consists of 6 items, they are competence in managing employees, employees reaction to carry out orders, expertise and experience of employees, employee creativity and innovation, mutual trust and respect among employees, and employee courage to provide creative ideas. The presence of these 6 items shows that the mean (average) of the human capital variable is 4.22 which is in the high category, it means that respondents thought that the application of human capital in business development is considered high.

### *B. Does Customer Capital have a Significant Influence toward the Performance of MSMEs*

The results of data analysis from this study indicate that customer capital consists of 6 items, they are known business brands, loyal customers, feedback and recommendations from other parties to improve products, customers criticism and advice, good distribution channels of money, and the best service for customers to develop business. The presence of 6 items shows that the mean (average) of the customer variable score is 3.75 which is includes in the high category. This means that respondents' perceptions toward the importance of customer capital to be applied by MSMEs are considered high.

### *C. Does Structural Capital have a Significant Influence toward the Performance of MSMEs*

The results of data analysis from this study indicate that structural capital consists of 6 items, such as having a database that contains all policies, having procedures and neatly arranged work instructions, having an organizational structure that is able to increase interaction between employees, using a customer-oriented management system, having regulations that oriented to cooperation between employees, involving employees in decision making and recruiting employees who have skills. The 6 items show that the mean (average) of the structural capital variable is 4.10 which is included in the high category. It means that the number of respondents who think that this structural customer is important to be implemented by MSME actors is high.

### *D. Does Social Capital have a Significant Influence toward the Performance of MSMEs*

The results of data analysis from this study indicate that social capital consists of 9 items, such as creating a conducive work environment, exchanging information between employees, providing facilities to employees to increase the capacity of knowledge and skills, building business networks and joining communities, helping employees to each other, between employees having personal closeness, a work environment that is family, and employees having actualization in workplace. The presence of these 9 items shows that the mean (average) of the social capital variable is 4.02 is in the high category, meaning the respondents perceive that the implementation of social capital in carrying out the work done is high.

*E. Does Customer Capital have a Significant Influence toward the Performance of MSMEs*

The results of data analysis from this study indicate that customer capital consists of 6 items, such as having employees who understand and use technology knowledge well, using technology to produce organizational product or service innovations, using the latest technology to compete with business competitors, having awareness that creating innovation is influenced by mastery of technology, having awareness to have a patent or certification of products sold, and having enough funds to be allocated to technology development for the organization. The presence of these 6 items shows that the mean (average) of the customer capital variable is 3.74 is in the high category, meaning the respondents perceive that the implementation of customer capital in business development is high. According to respondents, the factor that most difficult to implement is the allocation of funds for organization technology development which indicated by the mean value is only 2.91 with fair categories.

*F. Does Spiritual Capital have a Significant Influence toward the Performance of MSMEs*

The results of data analysis from this study indicate that the spiritual capital consists of 6 items, they are having a strong belief that employees can provide their best ability because work is a form of worship to God, emphasizing religious values that must be believed such as honesty, commitment, caring and respecting customers in achieving organizational goals, believing that business activities will be more profitable financially and non financially if they contribute to religious activities and social activities, believing that his/her business activities will continue to grow if he/she pay attention to the surrounding community, emphasizing honesty and mutual trust, honesty, sharing. knowledge and mutual respect are organizational cultures that encourage the birth of innovation continuously. With 6 items, it can be explained that the perceptions of respondents in applying spiritual capital of 3.72 is included in the high category, meaning that all respondents' business activities are based on the application of spiritual capital. The factor that most encourages the application of spiritual capital is the belief that the birth of innovation can continuously be generated from cultural values based on an attitude of trust, honesty, sharing knowledge, and mutual respect.

#### IV. DISCUSSION

This study has an R Square value of 0.915. This shows that the independent variables in this study were able to explain 91.5% variation in SME performance. While the remaining 8.5% is explained by variables or other aspects outside the model. Based on the results of the T-Test, it shows that all the independent variables have a significant influence on the performance of MSMEs. This research also produces findings where all independent variables or intellectual capital variables formed from all independent variables in this research have a significant influence on the performance of MSMEs. The T value for all independent variables (human capital, customer capital, structural capital, social capital, technology capital, and

spiritual capital) has a significance level in a sequence of 0.010; 0.017; 0.045; 0,000; 0.001; 0,000 so the value is less than 0.05. Thus, all hypotheses are accepted that each variable from human capital, customer capital, structural capital, social capital, technology capital, and spiritual capital partially has a significant positive impact on the performance of MSMEs.

This is indicated by the results of ANNOVA test that if the independent variables tested simultaneously, it will have a significance value of 0,000 and less than 0.05. This finding reinforces the results of previous studies conducted by Ismail [4]; Daou, et al. [5]; Khalique, et al. [6]; Khalique, et al. [7]; and Hasim et al. who suggested that the application of intellectual capital has a significant impact in improving business performance [8]. This research explains that the pattern of intellectual capital relations to business performance, where the findings are expected to provide theoretical contributions in the field of business development, especially for micro, small and medium scale businesses. The forming factors of intellectual capital are human capital, customer capital, structural capital, social capital, technological capital, and spiritual capital. In the application of human capital, it can be used to examine and understand the symptoms of individual attitudes and behavior in improving organizational performance. The application of customer capital has a significant effect on performance, although it has a negative coefficient. The application of structural capital has a positive and significant effect on business performance. The application of social capital has a positive relationship with business performance, meaning that findings that indicate that there is a positive and significant relationship between social capital and the performance of MSMEs can strengthen the results of previous studies. Technological implementation has a significant impact on improving organizational performance. The application of spiritual capital has a positive effect and significant to business performance. However, this is contrary to the results of research conducted by Khalique et al. [6]; Khalique et al. which revealed that spiritual factors do not have a significant effect on organizational performance [7].

#### V. CONCLUSION

This study concludes that intellectual capital has a positive and significant influence on the performance of MSMEs both simultaneously and partially. This means that the higher the implementation of intellectual capital the higher the business performance that will be produced. Social capital and spiritual capital are important components in improving the performance of MSMEs, considering that all these two capitals have become the strength of MSME actors in carrying out their business. While structural capital (institutional) is a challenge that must be resolved by MSME actors. Furthermore, human capital is considered as one of the important sub-components of intellectual capital and one of the main drivers of organizational performance. Support from the government can be improved through training and development.

This study was limited only examine the internal factors of the SMEs. For further research can use different methods to explore the external variables SMEs. Another suggestion for future research is to expand the research object of a larger social system to obtain a more varied sample. Collaborative

Governance is one of the strategic approaches to improve the performance of SMEs in industry 4.0 is interesting to be studied further.

#### REFERENCES

- [1] T. Tambunan, *SMEs in Asian developing countries*, New York: Palgrave Macmillan, 2009.
- [2] D.C. Mead, and C. Liedholm, "The dynamics of micro and small enterprises in developing countries". *World development*, vol. 26(1), pp. 61-74, 1998.
- [3] T. Tambunan, "Rural small-scale industries in a developing region: sign of poverty or progress? A case study in ciomas subdistrict, West-Java Province, Indonesia", *Entrepreneurship and Regional Development*, vol. 6, pp.1-13, 1994.
- [4] M. Ismail, *The influence of intellectual capital on the performance of telekom malaysia*. Thesis. Universiti Teknologi Malasia, 2005.
- [5] I. Daou, A.H. Tuttle, G. Longo, J.S. Wieskopf, R.P. Bonin, A.R. Ase, and P. Séguéla, "Remote optogenetic activation and sensitization of pain pathways in freely moving mice". *Journal of Neuroscience*, vol. 33(47), pp. 18631-18640, 2013..
- [6] M. Khaliq, and A. Hassan bin Md. Isa. "Intellectual capital in SMEs Operating on Boutique Sector in Kuching , Malaysia". *The UIP Journal of Management Research*, Vol XIII, No.2, 2014.
- [7] M. Khaliq, and N. Bontis. "Intellectual capital in small medium enterprises In Pakistan". *Journal of Intellectual Capital*, Vol 16(1), pp.224-238, 2015.
- [8] H.M. Jameelah., I. Osma., and S.M. Alhabshi. "Effect of intellectual capital on organizational performance". *Procedia – Social Behavioral Science*, vol. 211, pp. 207-214, 2015.