

# The Role of Innovation and Knowledge Management in Mediating the Relationship between Intellectual Capital and Organizational Performance

## in Koperasi UKM Savings and Loans and Sharia Financing (KSPPS)

#### Bambang Agus Sumantri<sup>1</sup>

<sup>1</sup>Doctoral student of Management Science, Jenderal Soedirman University <u>bambang.sumantri@mhs.unsoed.ac.id</u>

and

Lecturer in Management, Nusantara University PGRI Kediri bambang.as@unpkediri.ac.id

#### **ABSTRACT**

Purpose - This study aims to determine the relationship between intellectual capital, innovation, knowledge management and organizational performance.

Design / methodology / approach - The conceptualization model of the relationship between the three constructs is tested through structural equation modeling in a sample of 250 Sharia Savings and Loans and Financing Cooperatives (KSPPS) from the database of the Office of Cooperatives and SMEs in East Java Province.

Research limitations / implications - Data is limited to a sample of one province and 250 MSME Savings and Loans and Sharia Financing Cooperatives (KSPPS).

#### Research question:

- 1. Does intellectual capital affect innovation positively?
- 2. Does intellectual capital affect knowledge management positively?
- 3. Does intellectual capital have a positive effect on organizational performance?
- 4. Does knowledge management affect innovation positively?
- 5. Does knowledge management have a positive effect on organizational performance?
- 6. Does the innovation affect performance positively?
- 7. Does innovation mediate intellectual capital and organizational performance?

 $<sup>^1 \,</sup> Corresponding \, author. \, E-mail: \, bambang. sumantri@\, mhs. unsoed. ac. id; \, bambang. as @\, unpkediri. ac. id$ 



8. Does Innovation mediate knowledge management and organizational performance?

9. Does knowledge management mediate intellectual capital and organizational performance? Originality / value - until now there are still few other studies examining the effect of HR performance on intellectual capital. Therefore, this study contributes to understanding the intellectual capital and knowledge management innovations needed to operationalize it, including its relation to HR performance.

**Keywords:** Intellectual Capital, Innovation, Knowledge Management, Organizational Performance.

#### 1. Introduction

Intellectual Capital (IC) is a popular term used by practitioners in the field of human resource management as an implementation of human resource management. Intellectual capital is a category of independent assets. The study of invisible assets in the conception of invisible assets was developed by Hiroyuki Itami in 1980 (Sullivan, 2000), who sparked the idea of invisible assets in forms such as social capital and intellectual capital, a view which was later adopted in management. research (Bontis, 2004; Chia). -Yi & Jung-Nung, 2015; David et al., 2006; Falcone & Castelfranchi, 2011; Göran, Alan, & Kristine, 2001; Paola & John, 2015; Shujaat, Chandran, & Evelyn, 2016; However, Huhtamäki, & Russell, 2013; Sullivan, 2000; Tho & Trang, 2011; Welbourne & Pardo-del-val, 2009).

The contemporary economic context, and value creation in the context of corporate performance are characterized by extensive use of intangible resources, which may have greater value than tangible assets (Russell, 2017). Intellectual capital (IC), which is defined as "knowledge that can be converted into value" (Edvinsson & Sullivan, 1996, p. 361), is starting to be considered a key factor in the process of creating firm value, performance, competitive advantage, and success (Agostini, Nosella, & Filippini, 2017; Kato, Okamuro, & Honjo, 2015; Razafindrambinina & Anggreni, 2017; Wang & Zatzick, 2018).

The role played by intellectual capital (IC) is very important in the context of small and medium enterprises (SMEs). However, the IC literature that focuses on SME settings is limited and fragmented (Demartini, and Beretta, 2019) to clarify the role of IC in it may be difficult. Regarding intellectual capital in influencing the performance of SMEs (Guthrie et al., 2012; Massaro et al., 2015; Kato et al., 2015; Yu et al., 2017; Khoshmaram, Shiri, Shinnar, & Savari, 2018). identify SMEs about the different types of performance affected by intellectual capital (Massaro et al., 2015). Hejazi (2016) intellectual capital is the main source of value creation in the modern economy. Mcdowell, et.al (2018) have a positive relationship between two components, namely intellectual capital, human capital and organizational capital, and organizational performance.

The Agostini, Nosella, and Filippini (2017) sample of SMEs can be divided into two groups characterized by different IC strengths, and SMEs expressing higher IC power, in terms of



human capital, innovation capital, and relational capital, show far greater value. higher, the performance of radical and incremental innovation. Cleary and Quinn (2016), the three components of IC and business performance, these three elements are equally positive and statistically significant. Camfield, Giacomello, Sellitto (2018), intellectual capital through human, structural and client capital practically still has the same level of influence on organizational performance. Massaro, Mas, Bontis, and Gerrard (2019), intellectual assets in SMEs that certain categories of intellectual capital contribute positively to company performance. Pedro and Alves (2018) The group of components most frequently used in studies dealing with the effect of IC on performance corresponds to the human capital triad; structural capital (organization or process). Sardo et al. (2018) found a significant and positive effect of all types of IC on performance.

Ting, et.al (2020) changes in intellectual capital efficiency and human capital efficiency are significantly and positively related to changes in company performance, including changes in company efficiency and sales growth. Xu, et.al (2017) These studies confirm that most experts have agreed that IC has a positive influence on firm performance, but still has not reached an agreement on whether each component of IC is positively related. Wang, et.al., (2016) the more appropriate intellectual capital (IC) has an impact on company performance with the type of knowledge management strategy (KM) and, the better operational and financial performance can be achieved.

Asiaei, Jusoh and Bontis (2018), IC is indirectly related to organizational performance through the intervening variables of the balanced use of interactive and diagnostic performance measurement systems. Pirozzi and Ferulano (2016), a general assessment framework (CAF) model with two other frameworks representing IC and leadership. The main advantage of this model is its ability to measure and manage IC and financial / non-financial performance. Ahmed, et.al., (2019), that the potential for absorption does not interfere with the relationship between IC components and business performance. However, realized absorptive capacity, measured as the transformation and exploitation of knowledge, plays a positive mediating role in the relationship between the IC dimension and the business performance dimension. Social capital is also noted as a weak predictor of business performance, while human capital and organizational capital have large positive effects. Obeidat, et.al (2017) knowledge sharing has a positive mediating effect on the relationship between intellectual capital and organizational performance.

#### 2. Research Gap

Title of Research Gap The Effect of Intellectual Capital on Performance

According to previous research, intellectual capital is an asset that can be used by companies to achieve sustainable growth performance (Gomezelj Omerzel & Smolčić Jurdana, 2016; Rastogi, 2003). Previous studies have also identified a strong relationship between intellectual capital and firm performance (e.g., Firer & Mitchell Williams, 2003). Alipour (2016) intellectual capital is the main source of value creation in the modern economy. Mcdowell, et.al (2018) have a positive relationship between two components, namely intellectual capital, human capital and



organizational capital, and organizational performance. Regarding intellectual capital in influencing the performance of SMEs (Guthrie et al., 2012; Massaro et al., 2015; Kato et al., 2015; Yu et al., 2017; Khoshmaram, Shiri, Shinnar, & Savari, 2018). identify SMEs about the different types of performance affected by intellectual capital (Massaro et al., 2015).

As for financial performance, according to previous research, it can be positively influenced by the broad intellectual capital of the corporation (eg, Ismail & Karem, 2011; Kamath, 2007). The relevance of this relationship in the SME setting is justified by the need to face different challenges to ensure the survival of the company (Lee, Kelley, Lee, & Lee, 2012). In its context, intellectual capital can be used to create awareness and to improve the financial performance of SMEs (Khalique, Isa, Bin Shaari, & Hassan, 2014). In terms of social performance, in contrast, recent literature has paid more attention to the allocation of scarce resources in activities related to social problems (Waddock & Graves, 1997). This can translate into SMEs into a greater investment in intellectual capital to sustain environmental, social, and governance performance (eg, Aseanty, 2016; Jardon & Dasilva, 2017).

Research Gap The Effect of Intellectual Capital Dimensions of Human Capital on Performance There are differences in the results of research on the effect of intellectual capital on the dimensions of human capital on performance, the effect is significantly positive, for example in research: Andreeva and Garanina (2016), which states that human capital positively affects organizational performance. Bontis, Ciambotti, Palazzi, and Sgro (2018) state human capital contributes to explaining mission-based performance which is positively influenced by annual training, added value per employee and quality of customer relationships. Campbell and Park (2017) found a significant and positive relationship between HC and performance. Claver-Cort es et al. (2015) and Engström et al. (2003), who found human capital to be the most important performance driver. Cleary and Quinn (2016), state the positive and significant influence of human capital and business performance. Obeidat, et.al (2017) Human capital has a positive effect on organizational performance and knowledge sharing. Ting, et.al (2020) that changes in human capital efficiency are significantly and positively related to changes in company performance, including changes in company efficiency and sales growth. Xu, et.al (2017) found that human capital has a very significant positive relationship with performance.

Furthermore, there are research results that are not significant positive influence of intellectual capital on the dimensions of human capital on performance, for example in research: Kim et al. (2012) found that human capital did not significantly affect performance. Scafarto, Ricci, and Scafarto, F. (2016) stated that human capital negatively affects performance.

Research Gap The Effect of Intellectual Capital in the Dimensions of Structural Capital on Performance

There are differences in the results of research on the effect of structural capital on performance, the effect is significantly positive, for example in research: Andreeva and Garanina (2016) state that structural capital positively affects organizational performance. Campbell and Park (2017) found a significant and positive relationship between SC (structur capital) and performance. Dzenopoljac, Yaacoub, Elkanj, and Bontis (2017), The research produced ambiguous results. Income and profitability are significantly affected by structural capital



and physical; efficiency is determined primarily by physical capital; and market performance is mainly influenced by human resources.

Furthermore, there are research results that are not significantly positive for the effect of structural capital on performance, for example in research: Bontis, Ciambotti, Palazzi, and Sgro (2018) state that structural capital does not affect the performance of social cooperatives. Cleary and Quinn (2016) state that structural capital and business performance, although positive, are not statistically significant.

Research Gap The Effect of Intellectual Capital on the Dimensions of Relational Capital on Performance

There are differences in the results of research on the effect of relational capital on performance, the effect is significantly positive, for example in research: Agostini, Nosella, and Filippini (2017) the sample of SMEs can be divided into two groups characterized by the strength of relational capital, which is different, and SMEs that reveal The higher strengths of relational capital, in terms of relational capital, indicate much higher value, radical and incremental innovation performance. Bontis, Ciambotti, Palazzi, and Sgro (2018) that relational capital contributes to explaining mission-based performance which is significantly positively influenced by annual training, value added per employee and quality of customer relationships. Cleary and Quinn (2016), state a positive and statistically significant effect on relational capital and business performance. Pedro and Alves (2018) relational capital (social or customer), which determines the positive significant effect of organizational / regional / country performance, but the effect is not linear and depends on various factors related to the surrounding context and environment. Scafarto, Ricci, and Scafarto, F. (2016) state that relational capital has a positive impact on company performance.

There are differences in the results of research on the effect of relational capital on performance, not significant positively, for example in research: Andreeva and Garanina (2016), relational capital does not significantly affect organizational performance. Wisnu and Gupta (2014) relational capital, a new variable, does not show a statistically significant relationship with the performance variable.

#### Research Gap The Effect of Innovation on Performance

There are differences in the results of research on the effect of innovation capital on performance, positive significant, for example the research of Agostini, Nosella, and Filippini (2017) shows that the sample of SMEs can be divided into two groups characterized by different strengths of innovation capital, and SMEs which reveal the strength of innovation capital is more high, in terms of innovation capital shows much higher value, radical and incremental innovation performance. And there are differences in the results of research on the effect of innovation capital on performance, not significantly positive, for example in research: Scafarto, Ricci, and Scafarto, F. (2016) shows that innovation capital by itself is negatively associated with performance. Xu, et.al (2017) found that innovation capital was not very significant and positively related to temporary performance.

The influence of knowledge management in relation to performance



Knowledge is created and applied by companies in an effort to produce superior performance (Cohen & Levinthal, 1990; Grant, 1996a, 1996b).

The influence of knowledge management in relation to intellectual capital

Subramaniam and Youndt (2005) state that knowledge is accumulated by companies through individuals (human capital), relationships and networks (social capital), and knowledge systematization through processes and systems (organizational capital). Together, these forms of capital have been called intellectual capital (Reed, Lubatkin, & Srinivasan, 2006; Youndt, Subramaniam, & Snell, 2004). In line with the knowledge-based view, Guthrie, Petty, and Ricceri (2006) argue that intellectual capital is an integral part of firm value. Assessing its true value as a vital intangible asset may be difficult. Show that IC is developed through knowledge management and includes intangible assets such as patents and trademarks (Roos and Jacobsen, 2001).

The influence of knowledge management innovation on the relationship between intellectual capital and performance

Mcdowell, et.al (2018) show that the context of small and medium enterprises (SMEs) innovation partially mediates the relationship between intellectual capital and organizational performance. Efficiently and effectively organized SMEs can utilize skilled and innovative employees to achieve best performance through innovation.

The Phenomenon of Small and Medium Enterprises (SMEs) from the perspective of Small and Medium-sized Cooperatives (KKM) Cooperatives for Savings and Loans and Sharia Financing (KSPPS) in Indonesia

Research conducted by the Cooperative Innovation Hub (CIH), FEB UNSOED Cooperative and UKM Lab, in collaboration with the Kopkun Institute and LPDB-KUKM, 81.71 percent of respondents were managers and the rest were cooperative managers. With the respondent's profile, meanwhile, 82.76 percent are municipal / regency cooperatives, 11.71 percent are provincial areas and the rest are national. The research was carried out in October-November 2019. The top three priorities for innovation are human resource development innovation (90.19 percent), marketing innovation (82.4 percent) and social innovation (82.38 percent). From the research results of the Cooperative Innovation Hub (CIH), FEB UNSOED Cooperative and UKM Labs, the highest is HR development innovation, so it becomes an interesting business phenomenon to study in this study, where HR development innovation is measured by: **intellectual capital with knowledge management innovation, management innovation knowledge with performance, intellectual capital with performance, the role of knowledge management innovation in the relationship between intellectual capital and performance.** 

#### 3. Formulation of the problem

Based on the business research gap described above, the following research problems can be obtained:



- 1. There are still many differences in research results regarding differences in the results of research on the effect of intellectual capital on the dimensions of human capital on performance, which are significant positively, for example in research: Andreeva and Garanina (2016); Bontis, Ciambotti, Palazzi, and Sgro (2018); Campbell and Park (2017); Claver-Cort es et al. (2015); Cleary and Quinn (2016); Obeidat, et.al (2017); Ting, et.al (2020); Xu, et.al (2017). Meanwhile, several other studies stated that the results of research on the effect of human capital on performance were not significant positive, for example in research: Kim et al. (2012) and Scafarto, Ricci, and Scafarto, F. (2016).
- 2. There are still many differences in research results regarding differences in the results of research on the effect of intellectual capital on the dimensions of structural capital on performance, which are significant positively, for example in research: Andreeva and Garanina (20160; Campbell and Park (2017); Dzenopoljac, Yaacoub, Elkanj, and Bontis (2017) While several other studies state that the results of research on the effect of structural capital on performance are not significant positive, for example in research: Bontis, Ciambotti, Palazzi, and Sgro (2018); Cleary and Quinn (2016).
- 3. There are still many differences in research results regarding differences in the results of research on the effect of intellectual capital on the dimensions of relational capital on performance, which are significant positively, for example in research: Agostini, Nosella, and Filippini (2017); Bontis, Ciambotti, Palazzi, and Sgro (2018); Cleary and Quinn (2016); Pedro and Alves (2018; Scafarto, Ricci, and Scafarto, F. (2016). While several other studies state that the results of research on the effect of relational capital on performance are not significant positive, for example in research: Andreeva and Garanina (2016) and Wisnu and Gupta (2014).
- 4. There are still many differences in research results regarding differences in the results of research on the effect of innovation on performance, significant positive, for example in research: Agostini, Nosella, and Filippini (2017). Meanwhile, several other studies state that the results of research on the effect of innovation on performance are not significant positive, for example in research: Scafarto, Ricci, and Scafarto, F. (2016) and Xu, et.al (2017).
- 5. Knowledge is created and applied by companies in an effort to produce superior performance (Cohen & Levinthal, 1990; Grant, 1996a, 1996b). Subramaniam and Youndt (2005) state that knowledge is accumulated by companies through individuals (human capital), relationships and networks (social capital), and knowledge systematization through processes and systems (organizational capital). Together, these forms of capital have been called intellectual capital (Reed, Lubatkin, & Srinivasan, 2006; Youndt, Subramaniam, & Snell, 2004). In line with the knowledge-based view, Guthrie, Petty, and Ricceri (2006) argue that intellectual capital is an integral part of firm value. Assessing its true value as a vital intangible asset may be difficult.
- 6. The influence of innovation on the relationship between intellectual capital and performance. Mcdowell, et.al (2018) in the context of small and medium enterprises (SMEs) innovation partially mediates the relationship between intellectual capital and organizational performance.
- 7. Obeidat, et.al (2017) knowledge sharing has a positive mediating effect on the relationship between intellectual capital and organizational performance.



These research problems are very important to be researched for the development of human resource science, especially those related to intellectual capital, knowledge management and innovation to improve organizational performance, this is because this research is expected to explain the causes of differences in the results of research on intellectual capital on performance. HR, differences in research results on intellectual capital on knowledge management innovation, differences in research results on knowledge management innovation on HR performance, explaining the role of knowledge management innovation in converting intellectual capital into HR performance, explaining how to increase intellectual capital in an organization, and explaining the influence of capital intellectual and knowledge management innovations on HR performance with a background in developing countries, especially in Small and Medium Enterprises. This research is not only important for development in the field of HR science but also has a very important role as an effort to improve HR performance in Small and Medium Enterprises (SMEs), which so far still face various problems, one of which is the problem of knowledge management in human resources and innovation. Improving the performance of human resources in Small and Medium Enterprises (UKM) is very important for improving the welfare of the community, this is because the contribution of Small and Medium Enterprises (UKM) to the economy is very large and is able to absorb a large workforce.

Based on the research problems above which are based on the results of previous research and business phenomena that exist in Small and Medium Enterprises (UKM), the perspective of Small and Medium-sized Cooperatives (KKM), the main problem in this study can be formulated: "How to develop intellectual capital, to improve innovation and knowledge management, and how to explain the differences in research results on the relationship between intellectual capital, innovation and knowledge management and performance?"

#### 4. Research question

Based on the research problems above, this research is directed to answer the following research questions:

- 1. Does intellectual capital affect innovation positively?
- 2. Does intellectual capital affect knowledge management positively?
- 3. Does intellectual capital positively affect organizational performance?
- 4. Does knowledge management affect innovation positively?
- 5. Does knowledge management positively affect organizational performance?
- 6. Does the innovation affect performance positively?
- 7. Does innovation mediate intellectual capital and organizational performance?
- 8. Does Innovation mediate knowledge management and organizational performance?

#### 5. Discussion

Development of the Proposed Basic Theoretic Model.

The difference between this research and previous research is that in general research on intellectual capital and performance only uses the concept of core competency theory or organizational learning theory which is not comprehensive, so it is often unable to explain how



intellectual capital can improve performance, whereas in this study it integrates the concept of core competency theory. and organizational learning theory with the aim of being able to provide an explanation of the differences in research results regarding the relationship of intellectual capital (HR capital, structure, relational, innovation) and performance comprehensively, as well as explaining the process of transforming intellectual capital (HR capital, structure, relational, innovation) into performance. The originality of the proposed theoretical model in this study contributes to the development of HR management science about integration between core competency theory and organizational learning theory.

First, according to previous studies, organizational learning institutions are those that exhibit the highest level of intellectual capital (Bontis, 1998) and which, based on an optimized organization structure, can better support and exploit the benefits associated with intellectual capital (Vargas-Hernández & Noruzi, 2010). Second, Baker, Jensen, and Kolb (2002) state that knowledge can be generated through conversational learning, and intellectual capital can contribute to accelerating the process. Third, previous studies agree on the relevance of intellectual capital in influencing the capability of companies to innovate (Subramaniam & Youndt, 2005). Fourth, intellectual and knowledge capital must be coordinated to improve organizational performance (Wiig, 1997). More specifically, successful management of knowledge and intellectual capital is closely linked (Marr, Gupta, Pike, & Roos, 2003).

#### Hypothesis and Empirical Model Development.

The originality of the first empirical research model is that this research starts from the factors that can affect intellectual capital, so that clarity can be obtained about how to increase intellectual capital in an organization in order to improve performance. It is different from previous research which generally emphasizes the causal relationship between intellectual capital and performance, so that research that examines the antecedent of intellectual capital is still very limited.

The originality of the second empirical model is that this study will examine the effect of knowledge management innovation which is a consequence of intellectual capital on performance.

The originality of developing hypotheses and empirical models will contribute to the development of HR management science because it will be able to clearly explain the effect of intellectual capital, on performance, intellectual capital, on knowledge management innovation, knowledge management innovation on performance and explaining the factors for developing intellectual capital, and the process of transforming intellectual capital into performance. It is different from previous research which generally only examined the direct effect of intellectual capital on organizational performance, causing controversy over the results of research on intellectual capital on performance.

#### 6. Conclusion

This research was conducted at Small and Medium Enterprises (SMEs) with the perspective of Small and Medium-sized Cooperatives (KKM) with a background in developing countries, namely in Indonesia, in contrast to previous research which in general was research related to



market orientation and innovation carried out against the background of developed countries. with the research object of large companies, so that research related to intellectual capital and knowledge management innovation in small and medium enterprises with a background in developing countries is still very limited. Originality in the research object contributes to the application of the concept of intellectual capital, innovation and performance in Small and Medium Enterprises (UKM) with the perspective of Small and Medium-sized Cooperatives (KKM) in developing countries, besides that the results of this study can be used as a basis for policy making in an effort to improve performance. Small and Medium Cooperatives (KKM) are still lagging behind the development of large companies. Previous studies of IC affecting performance have shown that the context of SMEs is less researched (Massaro et al., 2015) and more attention is needed since SMEs are not just "big, small firms" (Coyte et al., 2012, p. 803).

This research is limited in terms of sector, location, and research method (Massaro, Handley et al., 2016). From a practical perspective, entrepreneurs can gain new insights from this study on how to acquire, develop and utilize the intellectual capital and knowledge management innovations of SMEs, based on the settings in which SMEs operate. SMEs could also benefit from this study because the aspects of intellectual capital and knowledge management innovations are the most relevant which have an impact on the identification of SME performance.

#### 7. Research purposes

#### General purpose

The aim of this research is to provide an explanation of the conceptual controversy regarding the relationship between intellectual capital and performance, as well as to explore and analyze the intellectual capital development process. In addition, this study is expected to provide an explanation of the process of transforming intellectual capital into performance which has been deemed unclear by previous researchers by including a mediating variable that bridges the relationship between intellectual capital and performance.

Special purpose

Based on the general objectives, the specific objectives to be achieved in this study can be detailed as follows:

- 1. To analyze the effect of intellectual capital on positive innovation.
- 2. To analyze the effect of intellectual capital on knowledge management positively.
- 3. To analyze the effect of intellectual capital on positive organizational performance.
- 4. To analyze the influence of knowledge management on positive innovation.
- 5. To analyze the influence of knowledge management on positive organizational performance.
- 6. To analyze the influence of innovation on performance positively.
- 7. To analyze the influence of innovation on intellectual capital mediating and organizational performance.
- 8. To analyze the influence of innovation mediating knowledge management and organizational performance.



9. To analyze the influence of knowledge management on mediating intellectual capital and organizational performance.

#### 8. Benefits of Research

#### Theoretical Benefits

Theoretically this research contributes to the development of science, especially in the field of HR, namely:

- 1. provide an explanation of the controversy over the results of research on the relationship between intellectual capital and performance. And intellectual capital with knowledge management innovation. As well as knowledge management innovations with performance,
- 2. this research can contribute to the development of science by describing the factors that can affect intellectual capital with performance. And intellectual capital with knowledge management innovation. As well as knowledge management innovations with performance,
- 3. this research can contribute knowledge about the application of intellectual capital with performance. And intellectual capital with knowledge management innovation. As well as knowledge management innovation with performance, from the perspective of Small and Medium Enterprises (UKM) Small and Medium Cooperatives (KKM) with a background in developing countries.

#### **Practical Benefits**

This research is useful for the management / owners of Small and Medium Enterprises (UKM) with the perspective of Small and Medium-sized Cooperatives (KKM) in an effort to improve performance. In addition, this research is useful for the government in its efforts to determine a model for developing Small and Medium-sized Cooperatives (KKM) to improve people's welfare through the development of Small and Medium Enterprises (UKM) with the perspective of Small and Medium Cooperatives (KKM) in East Java, especially in the Kediri Ex-Residency.

#### 9. Research Implications

This research is expected to explain the research gap regarding the causal relationship of intellectual capital to organizational performance. As well as being able to explain the right strategy to improve organizational culture in an organization. This research is expected to be used as a guideline in efforts to develop performance through efforts to increase intellectual capital in an organization, especially Small and Medium Enterprises (UKM) with the perspective of Small and Medium Cooperatives (KKM). In addition, the results of this study are expected to provide a model for the development of Small and Medium Enterprises (KKM) Cooperatives for Savings and Loans and Sharia Financing (KSPPS) for the government in order to improve people's welfare.



#### 10. Research Justification

The first justification, there is a research gap regarding research results related to intellectual capital and company performance as well as research related to the antecedent factors of intellectual capital. Besides that, there is also a business phenomenon related to the unsatisfactory performance of Small and Medium Enterprises (UKM). Based on the gap in research results and business phenomena that exist in Small and Medium Enterprises (SMEs) in Indonesia, a research issue is formulated.

The second justification, the theoretical model is developed based on an adequate literature review, this will help future researchers in developing relevant research models. The model developed allows practitioners to improve performance by going through several scenarios that are developed through a research model.

The third justification, this research can contribute ideas to the government in developing the performance of Small and Medium Enterprises (UKM) in the perspective of Small and Medium Cooperatives (KKM) in Indonesia, where Small and Medium Enterprises (UKM) from the perspective of Small and Medium Cooperatives (KKM) plays a very important role. dominant in moving the Indonesian economy, so that the findings in this study can contribute to improving the welfare of the community through improving the performance of Small and Medium Enterprises (UKM) in the perspective of Small and Medium Cooperatives (KKM).

#### References

- Agliata, Francesco., Tuccillo, Danilo., Rey, Andrea., Roberto, Fabiana., Intellectual Capital and Value Creation Process in Family Firm: A New Combined Model, *Journal of Human Resource Management*. Vol. 7, No. 4, 2019, pp. 108-119. doi: 10.11648/j.jhrm.20190704.15
- Agostini, L., Nosella, A., & Filippini, R. (2017). Does intellectual capital allow improving innovation performance? A quantitative analysis in the SME context. Journal of Intellectual Capital, 18(2), 400–418. doi:10.1108/JIC-05-2016-0056
- Ahmed, S.S., Guozhu, J., Mubarik, S., Khan, M. and Khan, E. (2019), "Intellectual capital and business performance: the role of dimensions of absorptive capacity", Journal of Intellectual Capital, Vol. 21 No. 1, pp. 23-39.
- Aseanty, D. (2016). Intellectual capital and sustainable growth in small and medium enterprises in Indonesia. OIDA International Journal of Sustainable Development, 9(10), 41–50.
- Bellucci, M., Marzi, G., Orlando, B. and Ciampi, F. (2020), "Journal of Intellectual Capital: a review of emerging themes and future trends", Journal of Intellectual Capital, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JIC-10-2019-0239
- Bontis, N., Ciambotti, M., Palazzi, F. and Sgro, F. (2018), "Intellectual capital and financial performance in social cooperative enterprises", Journal of Intellectual Capital, Vol. 19 No. 4, pp. 712-731. https://doi.org/10.1108/JIC-03-2017-0049
- Campbell, J.M. and Park, J. (2017), "Extending the resource-based view: effects of strategic orientation toward community on small business performance", Journal of Retailing and Consumer Services, Vol. 34, pp. 302-308. DOI: 10.1016/j.jretconser.2016.01.013

## SCA

- Claver-Cort\_es, E., Zaragoza-S\_aez, P.C., Molina-Manch\_on, H. and \_Ubeda-Garc\_1a, M. (2015), "Intellectual capital in family firms: human capital identification and measurement", Journal of Intellectual Capital, Vol. 16 No. 1, pp. 199-223.
- Cleary, P. and Quinn, M. (2016), "Intellectual capital and business performance: An exploratory study of the impact of cloud-based accounting and finance infrastructure", Journal of Intellectual Capital, Vol. 17 No. 2, pp. 255-278. https://doi.org/10.1108/JIC-06-2015-0058
- Demartini, Maria Chiara and Beretta, Valentina (2019): Intellectual capital and SMEs' performance: A structured literature review, Journal of Small Business Management To link to this article: https://doi.org/10.1080/00472778.2019.1659680
- Edvinsson, L., & Sullivan, P. (1996). Developing a model for managing intellectual capital. European Management Journal, 14(4), 356–364. doi:10.1016/0263-2373(96)00022-9
- Firer, S., & Mitchell Williams, S. (2003). Intellectual capital and traditional measures of corporate performance. Journal of Intellectual Capital, 4(3), 348–360. doi:10.1108/14691930310487806 (didownload 16 September 2020).
- Garanina, Tatiana Andreeva Tatiana, (2016) "Do all elements of intellectual capital matter for organizational performance? Evidence from Russian context.", Journal of Intellectual Capital, Vol. 17 Iss 2 pp. Permanent link to this document: <a href="http://dx.doi.org/10.1108/JIC-07-2015-0062">http://dx.doi.org/10.1108/JIC-07-2015-0062</a>
- Gomezelj Omerzel, D., & Smolčić Jurdana, D. (2016). The influence of intellectual capital on innovativeness and growth in tourism SMEs: empirical evidence from Slovenia and Croatia. Economic Research-Ekonomska Istraživanja, 29(1), 1075–1090. doi:10.1080/1331677X.2016.1211946
- Guthrie, J., Ricceri, F., & Dumay, J. (2012). Reflections and projections: A decade of intellectual capital accounting research. British Accounting Review, 44(2), 68–82. doi:10.1016/j.bar.2012.03.004
- Hejazi, Rezvan., Ghanbari, Mehrdad., and Alipour, Mohammad (2016), Intellectual, Human and Structural Capital Effects on Firm Performance as Measured by Tobin's Q, Knowledge and Process Management Volume 23 Number 4 pp 259–273 Published online in Wiley Online Library. DOI: 10.1002/kpm.1529
- Ismail, K., & Karem, M. A. (2011). Intellectual capital and financial performance of banks in Bahrain. Journal of Business Management and Accounting, 1(1), 63–77.
- Jardon, C. M., & Dasilva, A. (2017). Intellectual capital and environmental concern in subsistence small businesses. Management of Environmental Quality: An International Journal, 28(2), 214–230. doi:10.1108/MEQ-05-2015-0085 (didownload 16 September 2020).
- Kamath, B. G. (2007). The intellectual capital performance of the Indian banking sector. Journal of Intellectual Capital, 8(1), 96–123. doi:10.1108/14691930710715088 (didownload 16 September 2020).
- Kato, M., Okamuro, H., & Honjo, Y. (2015). Does founders' human capital matter for innovation? Evidence from J apanese start-ups. Journal of Small Business Management, 53(1), 114–128. doi:10.1111/jsbm.2015.53.issue-1
- Khalique, M., Isa, A. H. M., Bin Shaari, J. A. N., & Hassan, M. K. H. (2014). Constructing an index of entrepreneurial competencies and intellectual capital for ICT SMEs in Malaysia. The 6th International Borneo Business Conference, Kuching, Sarawak, Malaysia.
- Khoshmaram, M., Shiri, N., Shinnar, R. S., & Savari, M. (2018). Environmental support and entrepreneurial behavior among iranian farmers: The mediating roles of social and human capital. Journal of Small Business Management. doi:10.1111/jsbm.12501

## SCA

- Kim, T., Kim, W.G., Park, S.S., Lee, G. and Lee, J. (2012), "Intellectual capital and business performance: what structural relationships do they have in upper-upscale hotels?", International Journal of Tourism Research, Vol. 14, January, pp. 391-408, https://doi.org/10.1177/1467358413519468
- Lee, H., Kelley, D., Lee, J., & Lee, S. (2012). SME survival: The impact of internationalization, technology. Journal of Small Business Management, 50(1), 1–19. doi:10.1111/j.1540-627X.2011.00341.x
- Massaro, M., Dumay, J., & Bagnoli, C. (2015). Where there is a will there is a way: IC, strategic intent, diversification and firm performance. Journal of Intellectual Capital, 16(3), 490–517. doi:10.1108/JIC-07-2014-0091
- Massaro, M., Handley, K., Bagnoli, C., & Dumay, J. (2016). Knowledge management in small and medium enterprises: a structured literature review. Journal of Knowledge Management, 20(2), 258–291. doi:10.1108/JKM-08-2015-0320
- McDowell, W.C., Peake, Whitney O.., Coder, LeAnne., Harris, Michael L., (2018) Building small firm performance through intellectual capital development: Exploring innovation as the "black box", Journal of Business Research, https://doi.org/10.1016/j.jbusres.2018.01.025
- Pedro, Eugénia., Leitão, Joã., Alves, Helena., (2016) "Intellectual capital and performance: taxonomy of components and multidimensional analysis axes", Journal of Intellectual Capital, https://doi.org/10.1108/JIC-11-2016-0118
- Pedro, E., Leit~ao, J. and Alves, H. (2018), "Back to the future of intellectual capital research: a systematic literature review", Management Decision, Vol. 56 No. 11, pp. 2502-2583.
- Pirozzi, Maria Grazia, Ferulano, Giuseppe Paolo., (2016),"Intellectual Capital and Performance Measurement in Healthcare Organizations: an Integrated New Model.", Journal of Intellectual Capital, Vol. 17 Iss 2 pp. -Permanent link to this document: <a href="http://dx.doi.org/10.1108/JIC-07-2015-0063">http://dx.doi.org/10.1108/JIC-07-2015-0063</a>
- Rastogi, P. N. (2003). The nature and role of IC. Journal of Intellectual Capital, 4(2), 227–248. doi:10.1108/14691930310472848 (didownload 16 September 2020).
- Razafindrambinina, D., & Anggreni, T. (2017). Intellectual capital and corporate financial performance of selected listed companies in Indonesia. Malaysian Journal of Economic Studies, 48(1), 61–77.
- Sharmelly, Rifat (2017) "Crafting a winning innovation strategy", Strategic Direction, Vol. 33 Issue: 3, pp.8-11, https://doi.org/10.1108/SD-11-2016-0151
- Roos, G., Bainbridge, A., & Jacobsen, K. (2001). Intellectual capital analysis as a strategic tool, Strategy & Leadership, 29, 21–26.
- Russell, M. (2017). Management incentives to recognise intangible assets. Accounting and Finance, 57(S1), 211–234. doi:10.1111/acfi.12154
- Sardo, F., Serrasqueiro, Z. and Alves, H. (2018), "On the relationship between intellectual capital and financial performance: a panel data analysis on SME hotels", International Journal of Hospitality Management, Vol. 75, January, pp. 67-74, doi: 10.1016/j.ijhm.2018.03.001.
- Scafarto, Vincenzo., and Scafarto, Federica Ricci Francesco (2016),"Intellectual capital and firm performance in the global agribusiness industry: the moderating role of human capital", Journal of Intellectual Capital, Vol. 17 Iss 3 pp. Permanent link to this document: http://dx.doi.org/10.1108/JIC-11-2015-0096
- Ting, Irene Wei Kiong., Ren, Chunya., Chen, Fu-Chiang., Kweh, Qian Long., (2020) Interpreting the dynamic performance effect of intellectual capital through a value-addedbased perspective Journal of Intellectual Capital Vol. 21 No. 3, 2020 pp. 381-401 © Emerald Publishing Limited 1469-1930 DOI 10.1108/JIC-05-2019-0098



- Wang, T., & Zatzick, C. (2018). Human capital acquisition and organizational innovation: a temporal perspective. Academy of Management Journal, 62(1), 99–116.
- Waddock, S. A., & Graves, S. B. (1997). The corporate social performance–financial performance link. Strategic Management Journal, 18(4), 303–319. doi:10.1002/(ISSN)1097-0266
- Wang, zhining wang nianxin., and ye, jinwei cao xinfeng (2016),"The impact of intellectual capital knowledge management strategy fit on firm performance", Management Decision, Vol. 54 Iss 8 pp. Permanent link to this document: http://dx.doi.org/10.1108/MD-06-2015-0231
- William C. McDowell, Whitney O. Peake, LeAnne Coder, Michael L. Harris, (2018), Building small firm performance through intellectual capital development: Exploring innovation as the "black box" Journal of Business Research, https://doi.org/10.1016/j.jbusres.2018.01.025
- Xu, Xin-long; Yang, Xiao-nan; Zhan, Liang; Liu, Cheng Kun; Zhou,Ni-di: and Hua, Meimei. (2017). Examining the Relationship Between Intellectual Capital and Performance of Listed Environmental Protection Companies. Wiley Online Library (wileyonlinelibrary.com). DOI 10.1002/ep.12572
- Yu, A., Garcia-Lorenzo, L., & Kourti, I. (2017). The role of Intellectual Capital Reporting (ICR) in organisational transformation: A discursive practice perspective. Critical Perspectives on Accounting, 45, 48–62. doi:10.1016/j.cpa.2017.01.003