

THE DETERMINANTS OF SMEs' SUSTAINABILITY

Farida Styaningrum^{1*}, Budi Eko Soetjipto², Dwi Wulandari³

^{1*}PhD Candidate, Faculty of Economics, Universitas Negeri Malang, Indonesia and Lecturer, Faculty of Teacher Training and Education, Universitas PGRI Madiun, Indonesia; ^{2,3}Lecturer, Faculty of Economics, Universitas Negeri Malang, Indonesia.

Email: ^{1*}faridastyaningrum@unipma.ac.id, ²budi.eko.fe@um.ac.id, ³dwi.wulandari.fe@um.ac.id

Article History: Received on 31st March 2020, Revised on 10th June 2020, Published on 10th August 2020

Abstract

Purpose of the study: This study aims to prove the determination of SMEs' sustainability in Madiun's views of intellectual capital and competitive advantage empirically.

Methodology: Data was collected using a questionnaire filled out directly by SME entrepreneurs in Madiun, randomly selected by 200 respondents. This study applied quantitative research conducted in two phases. First, perform exploratory factor analysis tests, and the second phase, confirmatory factor analysis using AMOS version 18.

Main Findings: The results of the study found that intellectual capital directly did not significantly impact SMEs' sustainability. Intellectual capital significantly affects a competitive advantage. Furthermore, competitive advantages significantly impact SMEs' sustainability. Competitive advantage moderates the impact of intellectual capital on SMEs' sustainability.

Applications of this study: The research is expected to be used by SMEs entrepreneurs to improve their business to be more developed and able to compete in the global market by attention to intellectual capital and the competitive advantage of the company.

Novelty/Originality of this study: Previous studies revealed that intellectual capital has an impact on competitive advantage and SMEs' performance with a focus on financial aspects. This study to prove the determinants of SMEs' sustainability in Madiun as measured by financial and non-financial elements.

Keywords: *Intellectual Capital, Competitive Advantage, SMEs' Sustainability.*

INTRODUCTION

The role of Small and Medium Enterprises (SMEs) is significant for economic development and employment development. SMEs can achieve a competitive advantage and contribute significantly to regional and national economic growth and public welfare. SMEs also have significant environmental impacts at regional and national levels. SMEs have a significant role in employment and contribute to the Gross Domestic Product (GDP) ([Sarwoko & Frisdiantara, 2016](#)). In developing and developed countries, SMEs contribute to national GDP and make a significant distribution of employment, but SMEs have constraints in terms of resources and management skills, so this tends to hamper SMEs' sustainability ([Eniola & Ektebang, 2014](#); [González-Loureiro & Dorrego, 2012](#); [Muriithi, 2017](#); [Prabawani, 2013](#)).

Constraints faced in the development of SMEs today include access to markets and capital, information technology, and the lack of competent human resources (H.R.). Increasing employee competency through training with traditional methods such as lectures, seminars, and short courses does not always support SME operational training, but skills through training and education based on results, the use of interactive workshops based on action learning and role-playing, are recommended for SMEs' sustainability ([Urban & Naidoo, 2012](#)).

The results study of [Akhtar, Ismail, Ndaliman, Hussain, & Haider \(2015\)](#) show that intellectual capital has a relationship and a significant impact on SMEs' sustainability. Furthermore, the results of multiple regression indicate that the dimensions of knowledge and innovation of intellectual capital have more impact in creating sustainability for small businesses. Intellectual capital is an important resource for the firm's growth and innovation ([Sardo & Serrasqueiro, 2017](#)).

During this time, SMEs have concentrated more on tangible and financial assets in measuring performance. As the study by [Sarwoko & Frisdiantara \(2016\)](#) uses the financial aspects of sales, profits, and capital in measuring SME's growth. [Cantele & Zardini \(2018\)](#) found that SMEs are proven to apply sustainability practices to benefit from the operational and financial performance so that the strategic view of sustainability is not only the prerogative of large and multinational companies but the right way to achieve improved competitiveness and performance. Intellectual capital is considered to be a wealth generator and driver of financial performance, thus creating competitive advantage and sustainability in a business ([Xu & Wang, 2018](#); [Wang et al., 2014](#)).

Intellectual capital is an intangible asset to be developed; the SMEs' performance becomes more optimal. The results study of [Al Momani, Jamaludin, Abdullah, & Nour \(2020\)](#) and [Madinus et al., \(2011\)](#) shows that intellectual capital impact on company performance. Intellectual capital is measured by the value-added intellectual coefficient (VAICTM) components that include human capital efficiency, structural capital efficiency, and capital employed efficiency. Whereas firm performance, being measured through Market to Book ratio and Earnings per Share (EPS). The

contribution of individual-owned companies to sustainable development depends very much on the company's perception of the benefits of sustainability strategies and the resulting practices.

Furthermore, a study by [Aboelimged \(2018\)](#) found that there is a significant relationship between sustainable manufacturing practices and competitive advantage of SMEs. Business sustainability is the process of meeting the competitive needs of corporate leaders to sacrifice the organization's ability to meet the needs of future business competition ([Urban & Naidoo, 2012](#)). In supporting sustainability, SMEs need to attend to their competitive advantages. Competitive advantage is the company's competitive advantage compared to other companies that are obtained from the characteristics and resources. Quality, cost, delivery, and flexibility are significant competitive capabilities that support improving the company's competitive performance ([Aboelimged, 2018](#)). Four indicators that can explain a company's potential to produce competitive advantages are value, rareness, imitability, and substitutability ([Barney, 1991](#)).

The Government of Madiun City, East Java, Indonesia, is very intensively developing the SMEs in its region to achieve welfare and economic independence of the community. The existence of SMEs is fundamental because SMEs have contributed as much as 50 percent of the Gross Regional Domestic Product (GRDP) in 2018 ([Stevani, 2019](#)). Based on the results of the economic census in 2016 and inter-census agriculture survey in 2018, the number of SMEs in Madiun was 36,555, consisting of 3,389 agricultural sectors and 33,166 nonagricultural sectors ([Dinas Koperasi dan UKM Provinsi Jawa Timur, 2018](#)). SMEs are one of the economic supports in Madiun, so it needs to be considered in its sustainability in the global market.

The resulting study of [Styaningrum & Mustikarini \(2017\)](#) found that the implementation of Intellectual Property Rights (IPRs) on superior products of small and medium industries in Madiun to compete in the ASEAN Economic Community (AEC) free trade was less effective. IPRs are intangible assets that can be used as a supporting factor in developing a business. However, small and medium industry entrepreneurs assume that Intellectual Property Rights (IPRs) are not so crucial in competing and business sustainability for the long term. SMEs entrepreneurs in Madiun have not yet administered systematic records for business activities. SMEs entrepreneurs are more focused on human capital and relational capital to compete in the global market and achieve business success.

SMEs' sustainability in this study includes the growth of the company from financial (turnover and profit) and non-financial (employment) aspects over the past two years to maintain or enhance the company's reputation. Intellectual capital in this research is human capital and relational capital related to customers, suppliers, and the community. While the competitive advantage in this study is the superiority of raw materials and the characteristics of the products produced by the company are different from other companies.

Research Gap and objective of the study

A number of previous studies examined the impact of intellectual capital on firm performance with a competitive advantage as a moderating variable ([Anwar et al., 2018](#); [Jain et al., 2017](#); [Kamukama et al., 2011](#); [Kianto et al., 2013](#); [Sanchez-Gutierrez et al., 2016](#)) but only reviewed from the financial aspect in measuring firm performance. In measuring business sustainability, it is not only reviewed from the financial aspect, but also from the non-financial aspect. This study extends the previous studies by adding non-financial aspects in completing firm performance measurements for the SMEs' sustainability.

LITERATURE REVIEW

Identifying company growth depends on the measurements used because it is a complex phenomenon. Corporate growth is multidimensional that can be achieved in various ways by taking into account the demographic characteristics of the company ([Delmar, Davidsson, & Gartner, 2003](#)). There are many determinants of company growth, including individuals, organizations, and the environment. Individual factors directly impact business growth, as well as indirect impact through organizational factors. So individual factors are determinants of SMEs growth because individual factors that reflect the business experience and motivation of owners or managers in managing a business are more productive so they can compete, and their impact on achieving business growth. Environmental factors provide the most significant impact in achieving company growth, it means the ability of the owner or manager to produce competitive products, utilize technology, and diversity of products will determine SMEs' growth ([Sarwoko & Frisdiartara, 2016](#); [Zhou & Wit, 2009](#)).

Commitment to SMEs' sustainability is measured by knowing respondents' views on sustainability as necessary in the company in terms of management philosophy, strategic product decisions, competitiveness, and strategic planning ([Jansson, Nilsson, Modig, & Vall, 2017](#)). For companies and policymakers in thinking about business sustainability, it is necessary to pay attention to the use of internal and external perspectives. Internal and external factors of the company can be used as a basis for making decisions related to SMEs' sustainability. The results of the analysis show that intellectual capital has a positive impact on financial performance and companies' sustainable growth ([Xu & Wang, 2018](#); [Wang et al., 2014](#)). Intellectual capital is an important resource to enhance firms' financial performance and market value ([Nimtrakoon, 2015](#); [Sardo & Serrasqueiro, 2017](#)). Furthermore, according to [Urban & Naidoo \(2012\)](#), measuring of SMEs' sustainability can be done through financial and non-financial aspects. Indicators of SMEs'

sustainability can be viewed from employment growth, sales turnover growth, profit growth, and market value growth, which are all relative to competitors' performance.

There is a significant relationship between the intellectual capital and performance of SMEs' sustainability ([Ajike, Goodluck, Kwarbai, & Egwuonwu, 2016](#)). Intellectual capital (human, structural, and relational capital) has a positive and significant impact on SMEs' performance when mediated by organizational innovation ([Khan & Terziowski, 2014](#)). The dimensions of intellectual capital, innovation culture, and organizational climate are interrelated in supporting the success of SMEs. Higher levels of both intellectual capital and innovation culture are positively related to higher business performance ([Dabić et al., 2018](#)). Intellectual capital and its dimensions related to knowledge and innovativeness are significant in creating SMEs' sustainability. However, competence, intellectual agility, and skills have no significant impacts on SMEs' sustainability ([Akhtar et al., 2015](#)). In contrast, [Urban & Naidoo \(2012\)](#) empirically found that operating skills are positively related to SMEs' sustainability. SMEs entrepreneurs must be educated, both with formal and non-formal education, such as attending seminars and workshops to gain the knowledge and skills needed to enhance their business growth ([Yeboah, 2015](#)). Effective management of intellectual capital will impact business performance positively ([Sharabati, Jawad, & Bontis, 2010](#)).

H1: Intellectual capital significantly impacts SMEs' sustainability.

SMEs' sustainability must be oriented to the strategy of management skills and human resources technology in order to compete in the global market. The resulting study of [Jardon & Martos \(2012\)](#) found that every increase in human capital would undoubtedly have an impact on increasing structural capital and, subsequently, structural capital produced relational capital. SMEs show responsiveness in particular on the social and economic component of sustainability (relationships with employees, customers, and suppliers), which impacts mainly on organizational commitment ([Cantele & Zardini, 2018](#)). SMEs must improve employee skills to be more competitive by conducting training to managers and employees needed to adapt to compete in the global market.

Management and development of intangible assets, including effective intellectual capital management, are vital for SMEs as business organizations because business development is not only focused on financial aspects but also non-financial. Intellectual capital is a hidden part of a company's value because it consists of intangible company resources, which cannot be measured by the financial instruments used in the measurement of tangible assets. Intangible resources and intellectual capital are essential conditions for sustainable competitive advantage and long-term development. Intangible resource management and intellectual capital are crucial to achieving competitiveness and convergence at the micro and macroeconomic level ([Todericiu & Stanit, 2015](#)). Intellectual capital can be used to enhance competitiveness and sustainable economic development.

The resulting study of [Astuti, Chariri, & Rohman \(2019\)](#) found a positive and significant relationship between elements of intellectual capital: human capital, relational capital, and structural capital. The relationship between the three elements of intellectual capital can maximize the potential of an organization to support the competitive achievement advantage. Intellectual capital is the key driver for creating value-added products and services in an organization ([Khalique & De Pablos, 2015](#)). The conceptualization of intellectual capital is a variable that can support the achievement of an organization's competitive advantage.

H2: Intellectual capital significantly impacts on competitive advantage.

Improving employee knowledge, competence, and skills not only supports the organization in innovating but also in achieving competitive advantage by making employees more agile so they can support business sustainability. The existence of skilled and competent human resources in the organization helps in achieving organizational goals ([Akhtar et al., 2015; Yeboah, 2015](#)). SMEs, because of their smaller size and resources compared to large businesses, must focus more on developing human intellectual abilities. This ability is not only related to the knowledge and information that exists in the environment and which must be translated into meaningful actions but also relates to individual skills and competencies that can be utilized by organizations to become competitive and sustainable.

The impact of sustainability on company performance follows the pathway in which reputation, customer satisfaction, and organizational commitment are involved, and competitive advantage is the key to exploiting the steps of successful financial performance. Thus, sustainability has a strategic relevance in survival and SMEs development ([Cantele & Zardini, 2018](#)).

H3: Competitive advantage significantly impacts SMEs' sustainability.

The results study of [Jain, Vyas, & Roy \(2017\)](#) found that employees and customers are the most important stakeholders for the company. SMEs that innovate (including product innovation and collaborative processes with suppliers) can increase market share and produce intellectual property rights in the form of patents. High employee commitment, responsibility, and creativity have been instrumental in driving sales and profit margins by companies even during severe economic conditions. Intellectual capital is recognized as a critical factor in competitiveness and company sustainability, especially for SMEs. Intellectual capital represents a combination of corporate knowledge assets, in the form of a human, structural and relational capital that supports SMEs to participate in achieving competitive advantage and business development ([Jordão & Novas, 2017](#)).

Intellectual capital offers a potential source of sustainable competitive advantage and is believed to be the source from which economic growth may sprout ([Leaniz & Bosque, 2013](#)). The dimensions of economic, social, and environmental sustainability have a direct and positive effect on the company's reputation. Economic sustainability is considered the most critical dimension to enhance a company's reputation. The new economy is becoming increasingly important in the business environment in developed countries, thus demonstrating the role played by intellectual capital in achieving corporate competitive advantage.

[Cantele & Zardini \(2018\)](#) found that the social, economic, and formal dimensions of sustainability positively influence competitive advantage, mediated by company reputation, customer satisfaction, and organizational commitment. Competitive advantage also contributes positively to financial performance. Competitive advantage is a significant mediator in the relationship between intellectual capital and financial performance. The unique intellectual assets in an organization can put the organization in a better competitive position ([Anwar et al., 2018](#); [Kamukama, Ahiauzu, & Ntayi, 2011](#)).

H4: Competitive advantage mediates the impact of intellectual capital on SMEs' sustainability.

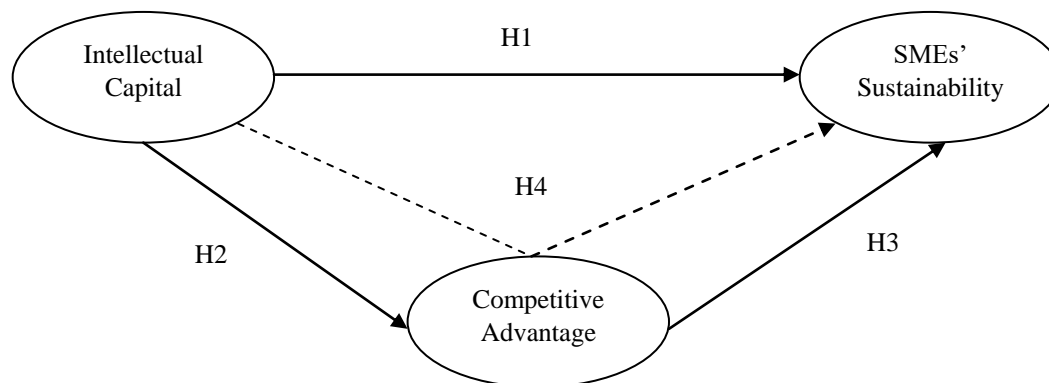


Figure 1: Theoretical Framework

Source: Author

METHODOLOGY

This study uses quantitative research to determine the impact between variables. This study aims to prove the determination of SMEs' sustainability in Madiun's views of intellectual capital and competitive advantage empirically. The population in this study are SMEs entrepreneurs in Madiun who have started their businesses for at least two years. With the random sampling technique, 200 SMEs will be obtained as respondents in this study. Interval research data collected by questionnaire technique.

The variables in this study are SMEs' sustainability, intellectual capital, and competitive advantage. SMEs' sustainability is the growth of the company that is seen from the financial and non-financial aspects. The instrument used to measure the sustainability SMEs variable in this study adopted from [Urban & Naidoo \(2012\)](#) as many as three items. Intellectual capital is a company's intangible assets consisting of human capital, structural capital, and relational capital. The instrument for measuring intellectual capital variables is adopted from [Jain et al. \(2017\)](#) and [Sharabati, Jawad, & Bontis \(2010\)](#) as many as 12 items. Competitive advantage is the advantage of raw materials and product characteristics compared to other companies. Instruments to measure competitive advantage adopt from [Aboelmaged \(2018\)](#); [Jain et al. \(2017\)](#); and [Mahmood & Hanafi \(2013\)](#) as many as 12 items. The variables were measured by using a five-point Likert scale, being 1 "strongly disagree" and 5 "strongly agree. Sample questions include "Company has increased employment over the past two years" to measure SMEs' sustainability, "Employees are skilled in carrying out work" to measure intellectual capital and "The company has products that are difficult to emulate by competitors" to measure competitive advantage.

This study was conducted in two phases. First, perform exploratory factor analysis (EFA) tests, and the second phase, confirmatory factor analysis (CFA) using AMOS version 18. This analysis is a way to validate data, explore dimensions, and maintain strong indicators ([Allen & Bennett, 2010](#)). Construction is reliable if it has an alpha Cronbach (α) score equal to or higher than 0.6 ([Hair JR., Black, Babin, & Anderson, 2010](#)). The second phase, calculating confirmatory factor analysis (CFA) using AMOS version 18. The model tested must have several criteria and cut-off values, including p-value (probability), > 0.5 to get a fit model ([Schermelleh-Engel, Moosbrugger, & Müller, 2003](#)). Furthermore, value $CMIN/DF < 2$ ([Tabachnick & Fidell, 2019](#)), $CFI > 0,95$ ([Hu & Bentler, 1995](#)), and $RMSEA \leq 0.05$ ([Hu & Bentler, 1999](#)).

RESULTS

Based on exploratory factor analysis results, it is known that from a total of 20 factors including SMEs' sustainability (3), intellectual capital (12), and competitive advantage (5), each variable has a loading factor of 0.536 until 0.920, and a Cronbach's alpha of 0.797 until 0.889. Furthermore, based on the results of the Structural Equation Model (SEM) to

check the theoretical framework and fitted models, a probability score of 0.081, CMIN/DF score of 1,493, CFI score of 0.992, FMIN score of 0.135 and RMSEA score of 0.050.

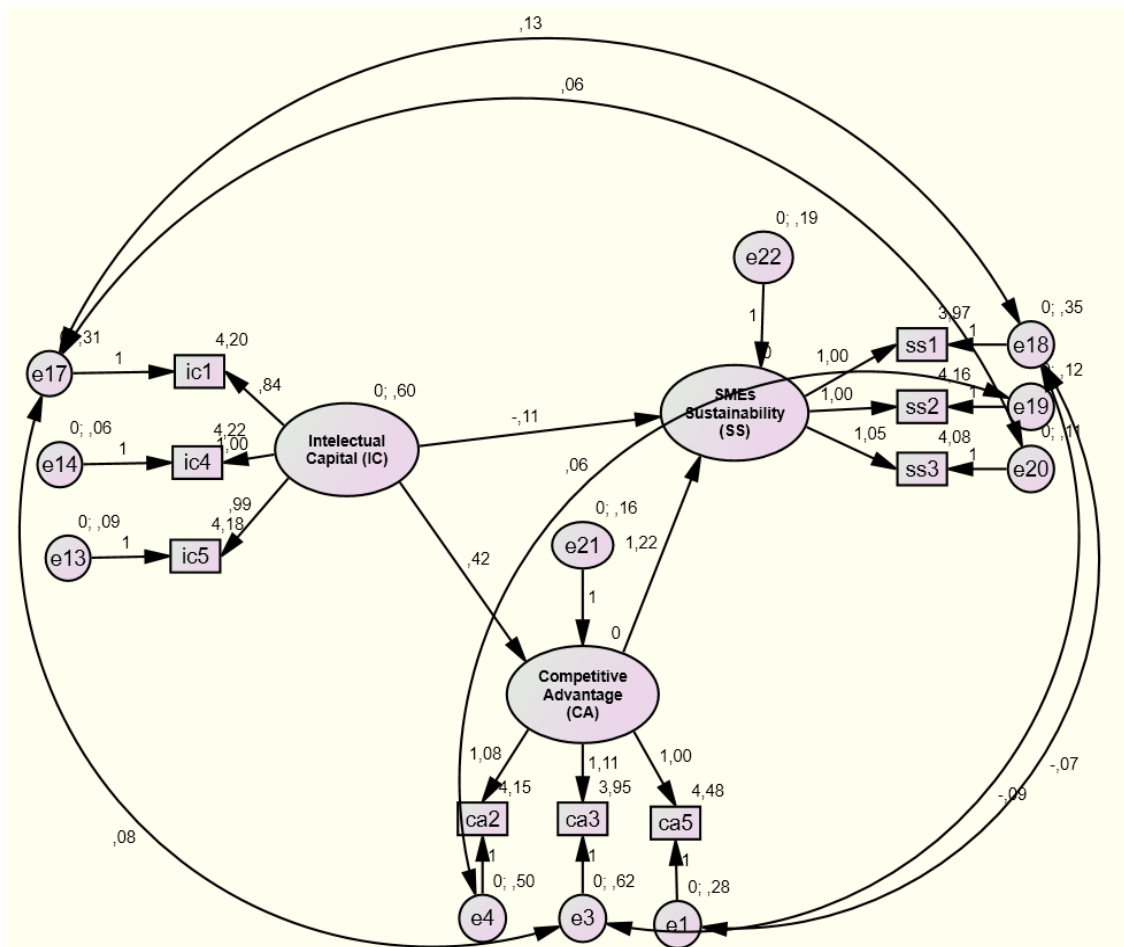


Figure 2: Results of the Structural Equation Model

Table 1: Result Summary of Hypotheses testing

			C.R.	P	Result
H ₁	I.C.	SS	-1.082	0.279	Insignificant
H ₂	IC	CA	7.282	***	Significant
H ₃	CA	SS	5.808	***	Significant
H ₄	Indirect effect IC → SS = b score 0.514				Significant

Based on SEM test results as presented in table 1, it is known that H₁ and H₃ show significant results with each of the C.R. values 7.282 dan 5.808. Based on the opinion [Hair J.R. et al. \(2010\)](#), the C.R. the value of each hypothesis is significant because ± 1.96 . Furthermore, based on table 1 it is also known that H₄ is significant with a value of b = 0.514 ([Hair et al., 2010](#)). This is in contrast to H₂ which is not significant because of the value of C.R. only -1.082.

DISCUSSION

Based on the results of testing the hypothesis with the SEM test, it answers four hypotheses proposed in this study. The first hypothesis (H₁) of this study that intellectual capital has no significant impact on SMEs' sustainability. The results of hypothesis testing with the SEM test show that the value of C.R. as much as -1,082 smaller than 1.96, so that the criteria are not significant ([Hair et al., 2010](#)). Thus, the results of this study reject H₁. The results of this study are different from the findings of [Urban & Naidoo \(2012\)](#), dan [Al Momani et al. \(2020\)](#). The results of this study support the findings of [Akhtar et al. \(2015\)](#), which states that intellectual capital, which includes employee competencies, intellectual agility, and skills is not a significant impact on SMEs' sustainability. Human capital related to the level of training in new technology by employees cannot directly impact on SMEs growth ([González-Loureiro & Dorrego, 2012](#)).

Furthermore, [Xu & Wang \(2018\)](#) found that innovative capital is not significant for companies' sustainable growth. Some SMEs entrepreneurs in Madiun have not paid attention to intellectual capital in developing their businesses ([Styaningrum & Mustikarini, 2017](#)). This is also confirmed in studies, namely [Cohen et al. \(2014\)](#), which states that although SMEs entrepreneurs care about their intellectual capital, they do not manage it in a coherent and strategically

profitable way. SMEs entrepreneurs still use traditional methods in creating SMEs' sustainability. Business success can be seen in product sales and revenue every year.

The second hypothesis (H_2) of this study is that intellectual capital has a significant impact on competitive advantage. The results of hypothesis testing with the SEM test show that the value of C.R. as much as 7.282 more than 1.96, so that the criteria are significant (Hair et al., 2010). Thus, the results of this study did not reject H_2 . The results of this study support the findings of Astuti et al. (2019), Todericiu & Stanit (2015), Bakshi (2015), Sanchez-Gutierrez et al. (2016) and Jain, Vyas, & Roy (2017). SMEs entrepreneurs use intellectual capital to compete, namely by retaining employees and customers. By having skilled and competent employees, it will be able to serve customers well, thus creating the right image in front of customers.

The third hypothesis (H_3) of this study is that competitive advantage has a significant impact on SMEs' sustainability. The results of hypothesis testing with the SEM test show that the value of C.R. as much as 5.808 more than 1.96, so that the criteria are significant (Hair et al., 2010). Thus, the results of this study did not reject H_3 . The results of this study support the findings of Mahmood & Hanafi (2013), Akhtar et al. (2015), and Yeboah (2015). Competitive advantage does not depend on natural resources, technology, or economies of scale, but on valuable, scarce, and difficult to imitate resources within the company (Mahmood & Hanafi, 2013). SMEs must invest in innovation to gain a competitive advantage (Aziz & Samad, 2016). SMEs that are able to innovate on products and services to customers will increase competitive advantage. By maintaining product quality and having the right image in front of customers, they will be able to maintain business so that the SMEs' sustainability will be achieved.

The fourth hypothesis (H_4) of this study is that competitive advantage mediates the impact of intellectual capital on SMEs' sustainability. The results of hypothesis testing with the SEM test show that the value of b as much as 0.514 so that the criteria are significant. Thus, the results of this study did not reject H_4 . The results of this study support the findings of Cantele & Zardini (2018), Kamukama et al. (2011), Jain, Vyas, & Roy (2017), Anwar et al. (2018), Kianto et al. (2013). There is a positive relationship between human capital and product innovation (Costa et al., 2014; Hsu & Fang, 2009; Leitner, 2011, 2015). Human capital is a complementary asset for SMEs in innovating. SMEs who are able to innovate will achieve a competitive advantage (Aziz & Samad, 2016). Competitive advantage is achieved because there is an impact of intellectual capital owned by SMEs, such as human capital and relational capital. Competitive advantage is the driver of SMEs' sustainability. So if SMEs can achieve competitive advantage in regional, national, and international markets, by optimizing their intellectual capital, they will be able to develop and maintain business.

CONCLUSION

This study aims to prove empirically the determination of SMEs' sustainability in Madiun views of intellectual capital and competitive advantage. The results of the study found that intellectual capital directly did not significantly impact SMEs' sustainability. Intellectual capital significantly impacts a competitive advantage. Furthermore, competitive advantages significantly impact SMEs' sustainability. Competitive advantage moderates the impact of intellectual capital on SMEs' sustainability. Intellectual capital includes human resources owned and relationships with customers, suppliers, and the community can increase competitive advantage, which in turn impacts on SMEs' sustainability in Madiun.

LIMITATION AND STUDY FORWARD

Although this study provides new insights into the determinants of SMEs' sustainability in Madiun, it still has limitations regarding data collection and generalization. First, this study suggests that future research on SMEs' sustainability should use a larger sample to validate current research further. Second, develop a study by looking at the factors that determine SMEs' sustainability.

ACKNOWLEDGEMENT

We would like to appreciate the editor and reviewer for their useful comments, which allowed them to increase the value of this article. We also want to thank Mr. Wisang, who helped in the field data collection related to SMEs in Madiun and Mr. Agus Wibowo, Universitas Negeri Jakarta, Indonesia, for their support and guidance in this article.

AUTHORS CONTRIBUTION

All authors contribute to the article. Farida Styaningrum contributed to data collection and data analysis. Budi Eko Soetjipto contributed to the collection of references related to research. Dwi Wulandari contributed to editing the manuscript.

REFERENCES

1. Aboelmaged, M. (2018). The Drivers of Sustainable Manufacturing Practices in Egyptian SMEs and Their Impact on Competitive Capabilities: A PLS-SEM Model. *Journal of Cleaner Production*, 175, 207–221. <https://doi.org/10.1016/j.jclepro.2017.12.053>
2. Ajike, E. O., Goodluck, N., Kwarbai, J. D., & Egwuonwu, T. K. (2016). Intellectual Capital and Performance Sustainability of SMEs in Lagos Nigeria. *International Journal of Advanced Studies in Business Strategies and*

- Management*, 4(1), 77–88.
3. Akhtar, C. S., Ismail, K., Ndaliman, M. A., Hussain, J., & Haider, M. (2015). Can Intellectual Capital of SMEs Help in Their Sustainability Efforts. *Journal of Management Research*, 7(2), 82–97. <https://doi.org/10.5296/jmr.v7i2.6930>
 4. Al Momani, K. M. K., Jamaludin, N., Abdullah, Z. W., & Nour, A. N. I. (2020). The Effects of Intellectual Capital on Firm Performance. *Humanities & Social Sciences Reviews*, 8(2), 184–192. <https://doi.org/10.18510/hssr.2020.8222>
 5. Allen, P., & Bennett, K. (2010). *PASW Statistics by SPSS: A Practical Guide, Version 18.0*. (J. King, Ed.). Australia: National Library of Australia.
 6. Anwar, M., Khan, S. Z., & Khan, N. U. (2018). Intellectual Capital, Entrepreneurial Strategy and New Ventures Performance: Mediating Role of Competitive Advantage. *Business & Economic Review*, 10(1), 63–94. <https://doi.org/10.1108/IJoEM-07-2017-0263>
 7. Astuti, P. D., Chariri, A., & Rohman, A. (2019). Association Between Intellectual Capital and Competitive Advantage: a Case Study on the Hotel Industry in Bali Province, Indonesia. *Humanities & Social Sciences Reviews*, 7(4), 440–449. <https://doi.org/10.18510/hssr.2019.7460>
 8. Aziz, N. N. A., & Samad, S. (2016). Innovation and Competitive Advantage: Moderating Effects of Firm Age in Foods Manufacturing SMEs in Malaysia. *Procedia Economics and Finance*, 35(October 2015), 256–266. [https://doi.org/10.1016/S2212-5671\(16\)00032-0](https://doi.org/10.1016/S2212-5671(16)00032-0)
 9. Bakshi, H. C. P. (2015). Examining Intellectual Capital and Competitive Advantage Relationship: Role of Innovation and Organizational Learning. *International Journal of Bank*, 33(3), 8–10. <https://doi.org/10.1108/EUM0000000001122>
 10. Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
 11. Cantele, S., & Zardini, A. (2018). Is Sustainability a Competitive Advantage for Small Businesses? An Empirical Analysis of Possible Mediators in the Sustainability- Financial Performance Relationship. *Journal of Cleaner Production*, 182, 166–176. <https://doi.org/10.1016/j.jclepro.2018.02.016>
 12. Cohen, S., Naoum, V. C., & Vlismas, O. (2014). Intellectual Capital, Strategy and Financial Crisis from a SMEs Perspective. *Journal of Intellectual Capital*, 15(2), 294–315. <https://doi.org/10.1108/JIC-11-2013-0110>
 13. Costa, R. V., Jardon, C., & Dorrego, P. F. (2014). Critical Elements for Product Innovation at Portuguese Innovative SMEs: An intellectual Capital Perspective. *Knowledge Management Research and Practice*, 12(3), 322–338. <https://doi.org/10.1057/kmrp.2014.15>
 14. Dabić, M., Lažnjak, J., Smallbone, D., & Švarc, J. (2018). Intellectual capital, organisational climate, innovation culture, and SME performance: Evidence from Croatia. *Journal of Small Business and Enterprise Development*, 26(4), 522–544. <https://doi.org/10.1108/JSBED-04-2018-0117>
 15. Delmar, F., Davidsson, P., & Gartner, W. B. (2003). Arriving at the High-Growth Firm. *Journal of Business Venturing*, 18, 189–216. [https://doi.org/10.1016/S0883-9026\(02\)00080-0](https://doi.org/10.1016/S0883-9026(02)00080-0)
 16. Dinas Koperasi dan UKM Provinsi Jawa Timur. (2018). Data UKM. Retrieved from <http://diskopukm.jatimprov.go.id/info/data-ukm>
 17. Eniola, A. A., & Ektebang, H. (2014). SME Firms Performance in Nigeria: Competitive advantage and its impact. *International Journal of Research Studies in Management*, 3(2), 75–86. <https://doi.org/10.5861/ijrsm.2014.854>
 18. González-Loureiro, M., & Dorrego, P. F. (2012). Intellectual Capital and System of Innovation: What Really Matters at Innovative SMEs. *Intangible Capital*, 8(2), 239–274. <https://doi.org/10.3926/ic.273>
 19. Hair JR., J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (Seventh Ed). New Jersey: Pearson Prentice Hall.
 20. Hsu, Y. H., & Fang, W. (2009). Intellectual capital and new product development performance: The mediating role of organizational learning capability. *Technological Forecasting and Social Change*, 76(5), 664–677. <https://doi.org/10.1016/j.techfore.2008.03.012>
 21. Hu, L.-T., & Bentler, P. M. (1995). *Evaluating model fit*. In R. H. Hoyle (Ed.), *Structural Equation Modeling: Concepts, Issues, and Applications*. London: Sage.
 22. Hu, L., & Bentler, P. M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
 23. Jain, P., Vyas, V., & Roy, A. (2017). Exploring the Mediating Role of Intellectual Capital and Competitive Advantage on the Relation Between CSR and Financial Performance in SMEs. *Social Responsibility Journal*, 13(1), 1–23. <https://doi.org/10.1108/SRJ-04-2015-0048>
 24. Jansson, J., Nilsson, J., Modig, F., & Vall, G. H. (2017). Commitment to Sustainability in Small and Medium-Sized Enterprises: The Influence of Strategic Orientations and Management Values. *Business Strategy and the Environment*, 26(August 2015), 69–83. <https://doi.org/10.1002/bse.1901>
 25. Jardon, C. M., & Martos, M. S. (2012). Intellectual Capital as Competitive Advantage in Emerging Clusters in Latin America. *Journal of Intellectual Capital*, 13(4), 462–481. <https://doi.org/10.1108/14691931211276098>
 26. Jordão, R. V. D., & Novas, J. C. (2017). Knowledge Management and Intellectual Capital in Networks of Small

- and Medium-Sized Enterprises. *Journal of Intellectual Capital*. <https://doi.org/10.1108/JIC-11-2016-0120>
27. Kamukama, N., Ahiauzu, A., & Ntayi, J. M. (2011). Competitive Advantage : Mediator of Intellectual Capital and Performance. *Journal of Intellectual Capital*, 12(1), 152–164. <https://doi.org/10.1108/14691931111097953>
 28. Khalique, M., & De Pablos, P. O. (2015). Intellectual Capital and Performance of Electrical and Electronics SMEs in Malaysia. *International Journal of Learning and Intellectual Capital*, 12(3), 251–269. <https://doi.org/10.1504/IJLIC.2015.070166>
 29. Khan, Y. K., & Terziovski, M. (2014). The Effects of Intellectual Capital on Performance in Australian Small and Medium Enterprises (SMEs). *Anzam*, 1–29.
 30. Kianto, A., Andreeva, T., & Pavlov, Y. (2013). The Impact of Intellectual Capital Management on Company Competitiveness and Financial Performance. *Knowledge Management Research and Practice*, 11(2), 112–122. <https://doi.org/10.1057/kmrp.2013.9>
 31. Leaniz, P. M. G. de, & Bosque, I. R. del. (2013). Intellectual Capital and Relational Capital : The Role of Sustainability in Developing Corporate Reputation. *Intangible Capital*, 9(1), 262–280. <https://doi.org/10.3926/ic.378>
 32. Leitner, K. H. (2011). The effect of intellectual capital on product innovativeness in SMEs. *International Journal of Technology Management*, 53(1), 1–18. <https://doi.org/10.1504/IJTM.2011.037235>
 33. Leitner, K. H. (2015). Intellectual Capital, Innovation, and Performance: Empirical Evidence from SMEs. *International Journal of Innovation Management*, 19(5). <https://doi.org/10.1142/S1363919615500607>
 34. Maditinos, D., Chatzoudes, D., Tsairidis, C., & Theriou, G. (2011). The Impact of Intellectual Capital on Firms' Market Value and Financial Performance. *Journal of Intellectual Capital*, 12(1), 132–151. <https://doi.org/10.1108/14691931111097944>
 35. Mahmood, R., & Hanafi, N. (2013). Entrepreneurial Orientation and Business Performance of Women-Owned Small and Medium Enterprises in Malaysia : Competitive Advantage as a Mediator. *International Journal of Business and Social Science*, 4(1), 82–90.
 36. Muriithi, S. (2017). African Small and Medium Enterprises (Smes) Contributions, Challenges and Solutions. *European Journal of Research and Reflection in Management Sciences*, 5(1), 36–48.
 37. Nimtrakoon, S. (2015). The Relationship Between Intellectual Capital, Firm' Market Value and Financial Performance: Empirical Evidence From The ASEAN. *Journal of Intellectual Capital*, 16(3), 587–618. <https://doi.org/10.1108/JIC-09-2014-0104>
 38. Prabawani, B. (2013). Measuring SMES' Sustainability : A Literature Review and Agenda for Research. *International Journal of Management and Sustainability*, 2(12), 193–207.
 39. Sanchez-Gutierrez, J., Mejia-Trejo, J., Vargas-Barraza, J. A., & Vazquez-Avila, G. (2016). Intellectual Capital, Impact Factor on Competitiveness: Manufacturing Industry SMEs in Mexico. *Measuring Business Excellence*, 20(1), 1–11. <https://doi.org/10.1108/MBE-12-2015-0059>
 40. Sardo, F., & Serrasqueiro, Z. (2017). A European Empirical Study of The Relationship between Firms' Intellectual Capital, Financial Performance and Market Value. *Journal of Intellectual Capital*, 18(4), 771–788. <https://doi.org/10.1108/JIC-10-2016-0105>
 41. Sarwoko, E., & Frisdiantara, C. (2016). Growth Determinants of Small Medium Enterprises (SMEs). *Universal Journal of Management*, 4(1), 36–41. <https://doi.org/10.13189/ujm.2016.040105>
 42. Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the Fit of Structural Equation Models: Tests of Significance and Descriptive Goodness-of-Fit Measures. *Methods of Psychological Research Online*, 8(May), 23–74.
 43. Sharabati, A.-A. A., Jawad, S. N., & Bontis, N. (2010). Intellectual Capital and Business Performance in the Pharmaceutical Sector of Jordan. *Management Decision*, 48(1), 105–131. <https://doi.org/10.1108/00251741011014481>
 44. Stevani, L. R. (2019). Pemerintah Kota Madiun Intensif Kembangkan UMKM. Retrieved from <https://jatim.antaranews.com/berita/272670/pemerintah-kota-madiun-intensif-kembangkan-umkm>
 45. Styaningrum, F., & Mustikarini, I. D. (2017). Implementasi HKI Pada Produk Unggulan IKM Sektor Makanan Di Kota Madiun untuk Bersaing dalam Masyarakat Ekonomi ASEAN. *PROMOSI: Jurnal Program Studi Pendidikan Ekonomi*, 5(2).
 46. Tabachnick, B. G., & Fidell, L. S. (2019). *Using Multivariate Statistics* (Seventh Ed). United States of America.: Pearson Education.
 47. Todericiu, R., & Stanit, A. (2015). Intellectual Capital – The Key for Sustainable Competitive Advantage for the SME's Sector. *Procedia Economics and Finance*, 27(15), 676–681. [https://doi.org/10.1016/S2212-5671\(15\)01048-5](https://doi.org/10.1016/S2212-5671(15)01048-5)
 48. Urban, B., & Naidoo, R. (2012). Business Sustainability : Empirical Evidence on Operational Skills in SMEs in South Africa. *Journal of Small Business and Enterprise Development*, 19(1), 146–163. <https://doi.org/10.1108/14626001211196451>
 49. Wang, Z., Wang, N., & Liang, H. (2014). Knowledge Sharing, Intellectual Capital and Firm Performance. *Management Decision*, 52(2), 230–258. <https://doi.org/10.1108/MD-02-2013-0064>
 50. Xu, J., & Wang, B. (2018). Intellectual Capital, Financial Performance and Companies' Sustainable Growth: Evidence from the Korean Manufacturing Industry. *Sustainability*, 10(12). <https://doi.org/10.3390/su10124651>



51. Yeboah, M. A. (2015). Determinants of SME Growth: an Empirical Perspective of SMEs in the Cape Coast Metropolis, Ghana. *The Journal of Business in Developing Nations*, 14.
52. Zhou, H., & Wit, G. de. (2009). *Determinants and Dimensions of Firm Growth. Scientific Analysis of Entrepreneurship and SMEs*. <https://doi.org/10.2139/ssrn.1443897>