

## THE DETERMINANTS AND EFFECTS OF COMPETITIVE ADVANTAGE OF LASEM BATIK TULIS MSEs

Maria Rio Rita<sup>1,\*</sup>, Ari Budi Kristanto<sup>2</sup>, Riskin Hidayat<sup>3</sup>, Pambayun Kinasih Yekti Nastiti<sup>4</sup>, and Petrus A. Usmanij<sup>5</sup>

### Abstract

This study examines the direct effects of human capital (HC), structural capital (SC), and relational capital (RC), on MSE performance (MP), and analyzes the mediating impact of competitive advantage (CA) on the relationship between HC, SC, and RC with MP using a partial least square-structural equation modeling (PLS-SEM) technique. This study also adds CA as a mediating variable to reflect the research setting of batik *tulis* MSEs in Indonesia. The study documents that HC and RC have a significant effect on CA. HC, RC, and CA have a significant positive effect on MP. The partial mediating role of CA is demonstrated in the indirect pathway of HC, SC, and RC to MP. Intangible capital (non-financial capital) can be a vital asset to increase CA and MP, especially when facing the crisis caused by the pandemic. The findings provide a model for consideration by related parties in improving community welfare through increasing MP, taking into account the determinants of HC, SC, RC, and CA.

**Keywords:** Human Capital, Structural Capital, Relational Capital, MSE Performance, Competitive Advantage, Batik *Tulis*

### INTRODUCTION

A Competitive Advantage (CA) is the unique position of a business entity which is able to provide potential profits, especially in the long-term (Radomska et al., 2020). Generally, a CA is only seen from the company's internal capital through the resource-based view theory (RBV) (Barney, 2001; Barney & Arian, 2001), but this research also considers external capital in the form of networks with other parties as an opportunity which can be used to build the uniqueness of a business in accordance with the resource-based entrepreneurship theory (RBET) (Alvarez & Busenitz, 2001). The theoretical framework chosen is based on the argument that the resource-based theory, which has often been used to build competitive

---

<sup>1,\*</sup>Asst. Prof. Dr. Maria Rio Rita (Corresponding Author) is currently working as a lecturer in the Department of Management of Faculty of Economics and Business, Universitas Kristen Satya Wacana, Indonesia. She obtained a Ph.D. in Management from University of Diponegoro, Indonesia. Email: maria.rita@uksw.edu

<sup>2</sup> Ari Budi Kristanto is currently working as a lecturer at Universitas Kristen Satya Wacana, Indonesia. He obtained a master's degree in Management from Universitas Katolik Indonesia Atma Jaya. He is a Ph.D. candidate in the School of Accounting, Economics and Finance of Curtin University, Australia.

<sup>3</sup> Asst. Prof. Dr. Riskin Hidayat is currently working as a lecturer in the Master of Management in Sarjanawiyata Tamansiswa University, Indonesia. He obtained a Ph.D. in Management from University of Diponegoro, Indonesia.

<sup>4</sup> Asst. Prof. Dr. Pambayun Kinasih Yekti Nastiti is currently working as a lecturer in the Department of Management of Faculty of Economics and Business, Universitas Kristen Satya Wacana, Indonesia. She obtained a Ph.D. in Management from Universitas Kristen Satya Wacana, Indonesia.

<sup>5</sup> Asst. Prof. Dr. Petrus A. Usmanij is currently working as a senior lecturer of Business Analytics in the La Trobe Business School of La Trobe University. He obtained a Doctoral degree in Management Information Systems from La Trobe University, Australia.

advantage models, will be more complete when combined with the RBET, making it more contextual for entrepreneurial firms.

Fernández-Olmos and Ramírez-Alesón (2017) separated the resources or capital owned by a company into two types, namely internal (firm level) and external (industry and macro-economic level) capital. Suppliers, customers, government entities, and investors, can be involved in the development of companies. However, not all individuals are willing and able to seize opportunities and cooperate with external parties to increase the value of their companies. Therefore, it is expected that synergizing the internal and external capital of a company, can improve the CA.

According to Edvinsson and Malone (1997), the combination of a firm's internal and external resources consists of human capital (HC), structural capital (SC), and customer or relational capital (RC). Abdullah and Sofian (2012) revealed that when these elements are a part of IC, it has a significant positive impact on business success and performance. Employee knowledge, the availability of non-human assets, and good relations with employees and external parties will support the formation of a CA (Obeidat et al., 2021; Sadalia et al., 2017).

HC includes one's attitudes, skills, competencies, experience, and knowledge to become a source of employee productivity which can support the business in forming a stronger competitive advantage (Sadalia et al., 2017). Meanwhile, Azzahra (2018) added that SC includes intellectual property (rights, copyrights, and trademarks) and infrastructure assets (corporate culture, information systems, network system), which help employees to create a CA. Relationships with external parties of the company can be useful for the transfer of knowledge, business advice, strategic information, and business experience, from their various perspectives, emphasizing the unique aspects and advantages that their competitors do not have (Kamukama & Sulait, 2017; Yaseen et al., 2016).

Furthermore, the CA can be used to create customer loyalty and unique products, improving business performance. Cater and Pucko (2005) and Handoko et al. (2015) confirmed that CA can improve company performance, generating superiority over competitors in the same industry. Referring to the findings of previous studies, this study proposes a novelty by adding CA as a mediating variable. The search of previous studies did not yield any prior research which included competitive advantage (CA) as a mediating variable in the relationship between intellectual capital and business performance in the Indonesian MSE context.

Lasem's batik *tulis* industry continued to decline until the early 21st century. The decline in Lasem's batik business is in line with the general reduction in the number of batik entrepreneurs who are predominantly Chinese entrepreneurs. Meanwhile, internal problems have also occurred in the form of regeneration issues in the families of Chinese batik entrepreneurs. Most of the Chinese younger generation have no interest in getting into the batik business (Basiroen & Lopian, 2016), choosing to continue their studies in big cities or even abroad. After completing their studies, most eventually choose not to return to their hometowns and look for work in other sectors. Batik is a dying tradition. The younger generation prefers instant work, while the written batik production process can take several months (Wisnubrata, 2023). The regeneration problem of a lack of successors to family-run batik *tulis* businesses has the potential to threaten the preservation of traditional Indonesian fabrics.

Apart from this low level of succession, there are other obstacles encountered in the batik *tulis* business. The low level of innovation in batik *tulis* products lowers their selling value compared to batik converted into clothing, bags or accessories (Nindyasari et al., 2021), so many young people consider this business less attractive to continue. In addition, technological advances threaten the socio-cultural sustainability of traditional batik production. Industrialization has reduced the number of existing qualified batik *tulis* craftsmen and the next generation of traditional batik craftsmen (Nugroho, 2013). Many successors are no longer interested in continuing their parents' batik *tulis* business, causing human resource constraints

in this business (Roziqin & Fajrina, 2021). Therefore, the existence of Lasem-Rembang Village as one of the centers of the batik *tulis* industry in Indonesia has almost disappeared from the national batik map.

Observing the batik *tulis* micro small enterprises (MSEs) that still survive to this day, has actually attracted the interest of researchers who wish to study the factors that contribute to their business performance in the midst of the complex problems faced by Lasem batik MSEs. The contribution of MSEs to the national economy is quite significant (Gade, 2018; Rana & Tiwari, 2014), but businesses in this sector do not follow proper management of resources and capabilities (Bhattacharyya & Jha, 2015; Liu et al., 2013), resulting in a low competitive advantage (Jatmiko et al., 2021; Panjaitan et al., 2018). The current MSE development program still has an agenda for helping MSEs to develop a competitive advantage, to increase their ability to boost their financial and non-financial performance. Furthermore, this study explores how various stakeholders are involved in developing and maintaining batik *tulis* Lasem amid the challenges of resource constraints in the batik *tulis* industry.

This study aims to examine CA in mediating the impact of HC, SC, and RC, towards the MP of Lasem batik *tulis*. The main problems in MSEs are limited capital, a lack of technological mastery, and unprofessional management which results in bleak business prospects (Prakash et al., 2021). CA enables a business to provide a distinct product or value (Niwash et al., 2022) allowing the business to outperform competitors (Bhattacharjee & Dey, 2015). The contribution of this study is in the form of a strategy for use of internal and external capital in obtaining a CA and increasing MP in the creative industry sector, based on the RBV and the RBET.

## **REVIEW OF LITERATURE**

The presence of IC reinforces the importance of possessing tangible assets to create economic wealth. One of the prominent studies on the importance of IC in an organization was conducted by Edvinsson and Malone (1997), where the ability to manage IC well (including its main features, steps, and approaches), will increase and maintain company value.

Apart from that, IC also stimulates the creation of new ways of doing business and utilizing business models, both in large-scale and small-scale companies. In fact, Stewart (1997) defined IC as a “complete knowledge package”, where IC consists of a collection of methods, technology, and human resource skills, as well as information about suppliers, customers, and other external parties. Furthermore, Edvinsson and Malone (1997) clarified that IC is composed of three elements, namely: SC, customer capital, and HC.

One IC component that is closely related to the context of MSEs is HC, because of the owner-manager traits that are characteristic of MSEs. HC is the most important resource of intellectual capital for MSEs as humans are a source of creativity and innovation (Buenechea-Elberdin et al., 2017), and HC is attached to humans, not organizations (Edvinsson & Malone, 1997). Therefore, an entrepreneur’s ability has a positive effect on the growth, development, and business sustainability (Delery & Roumpi, 2017), and can even become an input of a global market-oriented strategy (Tjahjadi et al., 2020). MSEs have a high dependence on tacit knowledge (Alawneh et al., 2009). With a qualified HC, MSEs can develop internal policies, decision-making processes, and incentive systems to evaluate and select valuable innovations.

HC includes the attitudes, skills, competencies, experience, and knowledge which become a source of employee productivity that in turn can support the formation of a stronger competitive advantage (Sadalia et al., 2017). Thus, HC is an important strategy that companies must consider, so that the skills, competencies, and knowledge possessed by their employees can further be developed, and so that they can devise more creative and innovative ideas for the company.

H1: HC has a significant positive effect on CA.

According to St-Pierre and Audet (2011), SC refers to the formal and written guidelines that apply to workers in a company in carrying out their duties, so that these workers know their responsibilities and obligations well, including communicating with other parties internally. MSEs that have good infrastructure, policies, and procedures, create a conducive working environment for the people in them so as to encourage innovation and productivity (Yaghoubi et al., 2011). In MSEs, knowledge is often attached not only to documents or other storage media, but also to organizational routines, processes, practices, and norms (Davenport et al., 1998). MSE entrepreneurs develop general knowledge to organize their work and generally use two-way communication because only a small number of individuals are involved.

Employees can't work properly if the company's systems and procedures are poor (Chahal & Bakshi, 2014). Azzahra (2018) added, SC includes intellectual property (rights, copyrights, trademarks) and infrastructure assets (corporate culture, information systems, network system) which help employees' ability to create a CA and resulting wealth for their company.

H2: SC has a significant positive influence on CA.

RC refers to the relationships that can be established by a company with external parties, such as customers, suppliers, relations, and regulators, which can be useful for the progress of the company (Onofrei et al., 2020). When stakeholders are satisfied with the interactions that occur, a domino effect will occur. MSE entrepreneurs who have business networks and collaborations with stakeholders will be able to improve their business excellence due to the transfer of knowledge, business advice, strategic information, and business experience, from the various perspectives these relationships provide. This can be used by MSEs to improve themselves and to emphasize the unique aspects and advantages that their competitors do not have (Kamukama & Sulait, 2017; Yaseen et al., 2016).

H3: RC has a significant positive influence on CA.

CA is the unique position of a business entity which is able to provide potential profits, especially in the long-term (Radomska et al., 2020). The ability of MSEs to maintain performance is related to the owner's competence, especially in terms of access to information, relations, marketing, and other strategic choices (Kamukama et al., 2017; Keskin et al., 2021).

CA in the batik business can be seen from the ability of the business to maintain a level of complexity in its batik designs and motifs which is not easily imitated by competitors, or if imitated, competitors will not be able to produce them with better quality because of the advantages in the batik-making process. A CA can be used to create customer loyalty and unique products, so it can improve business performance.

H4: CA has a significant positive influence on MP.

HC is an important asset in supporting business success. Employees' roles as thinkers, executors, and controllers, of every business decision and activity will have an impact on business success, especially in a creative industry sector such as batik. The production of batik *tulis* requires creativity, skill, patience, and the interactive communication of ideas between business owners and employees. Humans are a form of capital which has important qualitative aspects such as the abilities, skills, and intelligence, needed to manage a business (Kucharčíková, 2011). Collaboration between business owners and qualified employees will provide the ability to process other resources effectively and efficiently so as to create superior business performance compared to competitors.

H5: HC has a significant positive influence on MP.

MSE entrepreneurs do not just produce products or services to meet market needs, but must also have the ability to master innovation, information systems, organizational management, and information on market changing trends (Kurniawati et al., 2021). One of the elements of intellectual capital is SC, which consists of product/idea development and organizational infrastructure (Yaseen et al., 2016). The ability to develop creativity in producing batik *tulis* with various motifs and regional characteristics, accompanied by good production infrastructure, will capture a wider market. This wider market reach has the potential to increase customer satisfaction and sales.

H6: SC has a significant positive influence on MP.

Entrepreneurs benefit from community support, partnerships with related agencies or universities, financial and non-financial assistance from the government, healthy competition between fellow entrepreneurs, and good service from suppliers, as well as trust from customers which leads to a better reputation. When there are mutualistic relationships, micro-small-scale businesses will be able to survive because they are in a healthy environment (Corvino et al., 2019).

H7: RC has a significant positive influence on MP.

Kamukama and Sulait (2017) claimed that competent management will foster a competitive advantage, which in turn can lead to increased business performance. The tacit knowledge possessed by batik *tulis* entrepreneurs, which is passed down from previous generations, is a separate strength that can be utilized as a company's competitive advantage. The tacit knowledge of entrepreneurs plays a role in determining the direction of business strategies in adapting to deal with the dynamics of business challenges (Hamadamin & Atan, 2019).

H8: CA mediates the influence of HC on MP.

Within a company, SC systematically encourages members of the organization to put forth their best talents for the company. As a result, the knowledge and capabilities of organizational members form a business or work climate that is in line with the firm's goals, increasing the value and welfare of its members (Gogan et al., 2015). Structural capital is able to transform the tacit knowledge of the organization into other valuable resources, including databases, patents, organizational systems, and business processes that are superior to other parties (Abdirahman & Tarique, 2020).

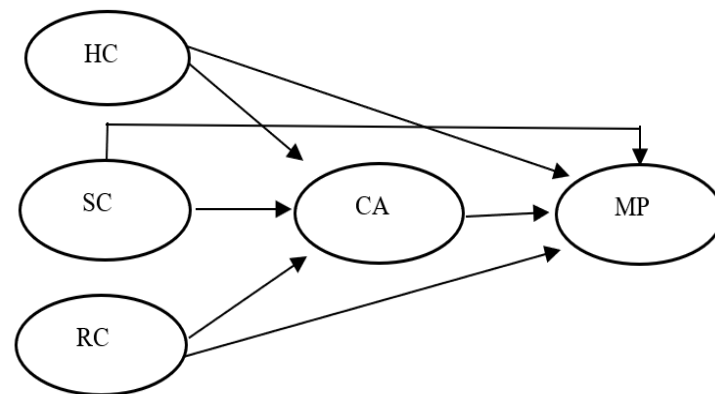
H9: CA mediates the influence of SC on MP.

Good relationships with customers will lead to brand loyalty as well as acting as a free marketing medium through word of mouth. Close relations with the government and other organizations can expand access to private information. These various benefits are not necessarily owned by all SME entrepreneurs. Artistic skills and knowledge are needed to recognize opportunities and take advantage of relationships with other parties (Darmawan et al., 2018). Through the CA obtained from good relations with various stakeholders, the company will be able to strengthen the uniqueness of its business so that business performance increases.

H10: CA mediates the influence of RC on MP.

Based on the development of the hypotheses above, a framework was developed as shown in Figure 1. This research model focuses on the role of CA in mediating the effects of HC, SC, and RCR, on MP.

**Figure 1** Conceptual Model



## RESEARCH METHODOLOGY

The objects of this research were batik MSEs located in the city of Lasem, Rembang Regency, Central Java. Lasem batik *tulis* is a type of coastal batik that has strong characteristics and nuances of Chinese-Javanese cultural acculturation. The Lasem batik tradition has developed since the 14<sup>th</sup> century, combining typical batik patterns from three cities (Pekalongan, Solo, and Surakarta). Lasem batik motifs have distinctive meanings and symbols that contain certain expectations from the craftsmen and wearers. The motifs used have meanings, and according to some people who produce them, have a certain magical power so that they can make the wearer feel inspired to think positively, act correctly, be wise, and so on, based on the meaning of each motif or symbol depicted on the batik cloth.

From the description of the history of Lasem batik, which has existed for a long time, and where each pattern has its own meaning, the meanings of these batik patterns reflect the very high intellectual capital of the craftspeople. In addition, this is also a competitive advantage for Lasem batik *tulis*, which in turn has an impact on improving the performance of SMEs. For this reason, with the long history of Lasem batik *tulis* amidst many types of stamped and printed batik, Lasem batik *tulis* as one of the batik *tulis* in Indonesia which must continue to be preserved as one of the cultures of Indonesia and even the world. Batik has been recognized by UNESCO as a world heritage that must be preserved.

The population in this study consisted of MSE batik entrepreneurs in Lasem, Rembang Regency, Central Java, totalling 120 business units. The sampling technique used was saturated sampling, or using the entire population as the research object. Primary data was collected using an offline questionnaire method. To collect the data, the researchers were assisted by eight enumerators to distribute questionnaires and conduct interviews by visiting Lasem batik entrepreneurs directly. This was done to avoid having the respondents fill out the questionnaires carelessly. After the questionnaires were completed by the respondents, the researchers tabulated and described the respondents' data. Then the validity and reliability of the research variables were tested. After determining the variable constructs that met the requirements, hypothesis testing was carried out. The PLS-SEM technique was used to test the research hypotheses because it can simultaneously test the direct effects and the indirect effects of mediation, while also being able to process a relatively small sample (Nitzl, 2016).

In this study, HC is defined as the resources that come from the expertise, knowledge, talents, competence, and experiences, possessed by the employees and managers, and which are needed to carry out activities on the job. In referring to Delery & Roumpi (2017), and Delery & Roumpi (2019), HC has three dimensions, namely: (1) workforce capability, (2) workforce development and retention, and (3) workforce behavior. SC is classified as the formal and written guidelines that apply to employees in a company in carrying out their duties,

so that they know their responsibilities and obligations clearly, including communicating with other parties. Following Yaseen et al. (2016), SC has two dimensions, namely: (1) product/idea development and (2) organizational infrastructure. RC is labeled as a relationship that MSEs can establish with external parties, such as customers, suppliers, academicians, regulators, etc. (Yaseen et al., 2016). MP is described as the results obtained by MSEs, both financial and non-financial. Rita and Thren (2019) listed three dimensions from MP, namely: (1) financial performance, (2) non-financial performance, and (3) entrepreneurial performance. Next, CA has four dimensions, namely: (1) valuable resources, (2) rare resources, (3) imperfectly imitable resources, and (4) durable resources (Cardeal & Antonio, 2012). All of the indicators of the latent variable were reflected through several question items in the questionnaire and measured using a 5-point Likert scale with 1 identified as “strongly disagree”, 2 as “disagree”, 3 as “neutral”, 4 as “agree”, and 5 as “strongly agree”. The research questions in the questionnaire are shown in Table 1.

**Table 1** Measurement Items Used in the Questionnaire

Variables	Measurement Items
HC	<ol style="list-style-type: none"> <li>1. The craftsmen employed at our business have good batik skills.</li> <li>2. The craftsmen employed at our business know how to do the correct batik techniques.</li> <li>3. Our craftsmen do neat and refined work.</li> <li>4. I ask the craftsmen to join batik training that is conducted by the related agency.</li> <li>5. I encourage the craftsmen to do comparative studies to other regions.</li> <li>6. I support the craftsmen to participate in batik training at other places.</li> <li>7. The craftsmen are comfortable with the workplace atmosphere.</li> <li>8. The craftsmen work professionally based on their tasks.</li> <li>9. The craftsmen can communicate well with each other.</li> <li>10. A family atmosphere is shown between the craftsmen during and outside of working hours.</li> <li>11. The craftsmen finish their tasks within the designated time period.</li> </ol>
SC	<ol style="list-style-type: none"> <li>1. The batik motifs that we produce only have Laseman characteristics.</li> <li>2. We are currently producing batik motifs that are different from the Laseman motifs.</li> <li>3. We only produce the batik <i>tulis</i> variety.</li> <li>4. Besides batik <i>tulis</i>, we also have stamped and printed batik.</li> <li>5. We have a sufficient number of craftsmen to meet the market demand.</li> <li>6. We already have our own store or boutique to market our products.</li> </ol>
RC	<ol style="list-style-type: none"> <li>1. We maintain good relations with our customers.</li> <li>2. We actively respond to all customer complaints.</li> <li>3. We have customers from overseas.</li> <li>4. Our raw material suppliers are from outside of Rembang.</li> <li>5. The material shipments from suppliers arrive on time.</li> <li>6. The prices of raw materials from our regular suppliers are cheaper than from other suppliers.</li> <li>7. Our batik <i>tulis</i> competitors are only from Lasem.</li> <li>8. The government often provides assistance for batik MSMEs.</li> <li>9. We have good communication with the regional government.</li> <li>10. The government and the banking infrastructure facilitate the formation of a batik village.</li> <li>11. The banking structure provides easy credit facilities to develop batik MSMEs.</li> <li>12. The banking infrastructure provides CSR assistance to develop a batik village.</li> <li>13. The Rembang society is proud to wear Lasem batik.</li> <li>14. The competitors often offer discounts for their products.</li> </ol>

**Table 1 (Continued)**

Variables	Measurement Items
CA	<ol style="list-style-type: none"> <li>1. Lasem batik <i>tulis</i> has its own characteristics.</li> <li>2. Doing batik <i>tulis</i> requires special skills.</li> <li>3. Designing batik motifs requires high artistic skills.</li> <li>4. The patterns of Lasem batik <i>tulis</i> have their own characteristics which are difficult to imitate.</li> <li>5. The colors of Lasem batik <i>tulis</i> do not easily fade.</li> <li>6. The fabric used is of good quality.</li> <li>7. The characteristics of Lasem batik <i>tulis</i> are difficult to transfer to another region.</li> <li>8. The cultural value of Lasem batik <i>tulis</i> cannot be transferred to another area.</li> <li>9. We actively carry out word of mouth marketing activities.</li> </ol>
MP	<ol style="list-style-type: none"> <li>1. My business has had an increase in profit over the last 2 years.</li> <li>2. My business has had an increase in turnover over the last 2 years.</li> <li>3. The number of customers has increased over the last 2 years.</li> <li>4. My product marketing area has expanded over the last 2 years.</li> <li>5. I have quality products.</li> <li>6. I am satisfied with the current business profit.</li> <li>7. My employee welfare has improved compared to before.</li> </ol>

## RESULTS AND DISCUSSION

Table 2 reveals that most of the business units sampled in this study are more than 10 years old, indicating that the Lasem batik *tulis* business has been passed down from previous generations. Of the 120 MSEs observed, 53% of the businesses are managed by men, while the remainder (47%) are run by women. Regarding the business type of Lasem batik businesses, most are family-owned (60%), while the remainder are in the form of sole proprietorship (40%). The majority of businesses in the sample are micro businesses with a number of employees  $\leq 3$  people (75%). While monthly sales normally range from less than IDR 10,000,000 (60%), and only 10% of businesses have a monthly turnover of more than IDR 15,000,000. The education level of the Lasem batik SME actors is most commonly a 3-year diploma or bachelor's degree level, accounting for 41% of the sample, followed by a high school education level at 32%, with the lowest proportion being elementary school graduates (7%), with low education, all of whom are mothers that are older in age.

**Table 2** Characteristics of the Firms

Characteristics	Absolute (%)
Firm years:	
< 5 years	25 (21%)
5 - < 10 years	39 (33%)
10 - < 15 years	25 (20%)
15 - < 20 years	12 (10%)
$\geq 20$ years	19 (16%)
Total	120 (100%)
Businesses managed based on gender:	
Men-led businesses	63 (53%)
Women-led businesses	57 (47%)
Total	120 (100%)
Type of MSEs:	
Family-owned	72 (60%)
Sole proprietorship	48 (40%)
Total	120 (100%)



**Table 2 (Continued)**

Characteristics	Absolute (%)
Number of employees:	
≤ 3 persons	90 (75%)
4 – 10 persons	25 (21%)
≥ 10 persons	5 (4%)
Total	120 (100%)
Sales revenue per month:	
< IDR5,000,000	26 (22%)
IDR5,000,000 – < IDR10,000,000	46 (38%)
IDR10,000,000 - < IDR15,000,000	36 (30%)
≥ IDR15,000,000	12 (10%)
Total	120 (100%)
Highest education level obtained by the owner:	
Elementary school	8 (7%)
Middle school / equivalent	15 (12%)
High school / Vocational high school/ equivalent	38 (32%)
3-years Diploma / Bachelor's degree	49 (41%)
Graduate degree	10 (8%)
Total	120 (100%)
Firm years:	
< 5 years	25 (21%)
5 - < 10 years	39 (33%)
10 - < 15 years	25 (20%)
15 - < 20 years	12 (10%)
≥ 20 years	19 (16%)
Total	120 (100%)
Businesses managed based on gender:	
Men-led businesses	63 (53%)
Women-led businesses	57 (47%)
Total	120 (100%)
Type of MSEs:	
Family-owned	72 (60%)
Sole proprietorship	48 (40%)
Total	120 (100%)
Number of employees:	
≤ 3 persons	90 (75%)
4 – 10 persons	25 (21%)
≥ 10 persons	5 (4%)
Total	120 (100%)
Sales revenue per month:	
< IDR5,000,000	26 (22%)
IDR5,000,000 – < IDR10,000,000	46 (38%)
IDR10,000,000 - < IDR15,000,000	36 (30%)
≥ IDR15,000,000	12 (10%)
Total	120 (100%)
Highest education level obtained by the owner:	
Elementary school	8 (7%)
Middle school / equivalent	15 (12%)
High school / Vocational high school/ equivalent	38 (32%)
3-years Diploma / Bachelor's degree	49 (41%)
Graduate degree	10 (8%)
Total	120 (100%)

Table 3 shows that the variables HC, SC, RC, CA, and MP are in the “high” category.

**Table 3** Statistical Description

Variable	Mean*	Category
HC	4.15	High
SC	3.90	High
RC	4.01	High
CA	4.34	High
MP	4.21	High

\* 1.00 – 2.33: low; 2.34 – 3.67: moderate; 3.68 – 5.00: high

The results shown in Table 4 reveal that all items making up the variable construct have factor loadings  $> 0.70$  and p-values  $< 0.05$ , so it can be said that these items have met the requirements for adequate variable constructs. Likewise, the composite reliability values of all variables are greater than 0.70, so it can be concluded that all variables possess internal consistency and reliability. Additionally, the AVE values for each construct are greater than 0.50, meeting the criteria for convergent validity.

**Table 4** Variable Construct Test Result

Latent Variable	Loading	P-value	Latent variable	Loading	P-value
HC (composite reliability = 0.923 <sup>(r)</sup> ; AVE = 0.824 <sup>(cv)</sup> )			SC (composite reliability = 0.728(r); AVE = 0.599)		
HC2	0.717	<0.001	SC1	0.747	<0.001
HC3	0.709	<0.001	SC2	0.775	<0.001
HC5	0.747	<0.001	SC3	0.834	<0.001
HC6	0.804	<0.001	SC4	0.705	<0.001
HC7	0.734	<0.001	SC6	0.792	<0.001
HC9	0.745	<0.001	SC9	0.722	<0.001
HC10	0.792	<0.001	CA (composite reliability = 0.876(r); AVE = 0.795(cv))		
HC12	0.711	<0.001	CA1	0.744	<0.001
HC14	0.716	<0.001	CA2	0.763	<0.001
HC15	0.766	<0.001	CA3	0.720	<0.001
HC16	0.755	<0.001	CA5	0.721	<0.001
RC (composite reliability = 0.747 <sup>(r)</sup> ; AVE = 0.577 <sup>(cv)</sup> )			CA6	0.823	<0.001
RC1	0.732	<0.001	CA7	0.701	<0.001
RC3	0.703	<0.001	CA8	0.730	<0.001
RC4	0.801	<0.001	CA10	0.754	<0.001
RC6	0.721	<0.001	CA11	0.771	<0.001
RC7	0.718	<0.001	MP (composite reliability = 0.840(r); AVE = 0.689(cv))		
RC8	0.739	<0.001	MP1	0.829	<0.001
RC10	0.720	<0.001	MP2	0.919	<0.001
RC11	0.751	<0.001	MP3	0.958	<0.001
RC12	0.757	<0.001	MP4	0.770	<0.001
RC13	0.745	<0.001	MP6	0.735	<0.001
RC14	0.774	<0.001	MP7	0.786	<0.001
RC15	0.720	<0.001	MP8	0.848	<0.001
RC16	0.775	<0.001			
RC17	0.717	<0.001			

Notes: 1) <sup>(r)</sup>CR of 0.70 or more: sufficient reliability  
2) <sup>(cv)</sup>AVE of 0.50 or more: convergent validity

Table 5 depicts the results of the discriminant validity testing, where the square root value for each construct is greater than the correlation between constructs, thus indicating good discriminant validity.

**Table 5** Discriminant Validity Test Results

	HC	SC	RC	CA	MP
HC	0.851 <sup>(dv)</sup>				
SC	0.478***	0.831 <sup>(dv)</sup>			
RC	0.464***	0.529***	0.826 <sup>(dv)</sup>		
CA	0.573***	0.438***	0.579***	0.829 <sup>(dv)</sup>	
MP	0.437***	0.563***	0.555***	0.515***	0.837 <sup>(dv)</sup>

The direct and indirect results of the PLS-SEM test can be viewed in Table 6 below.

**Table 6** Hypothesis Testing Results

Hypothesis	Coefficient Path	P-value	Decision
Panel A. Direct Effect:			
HC → CA	0.209	0.020**	H1 is accepted
SC → CA	0.976	<0.001***	H2 is accepted
RC → CA	0.030	0.384	H3 is rejected
CA → MP	0.685	<0.001***	H4 is accepted
HC → MP	0.824	<0.001***	H5 is accepted
SC → MP	0.098	0.168	H6 is rejected
RC → MP	0.327	0.001***	H7 is accepted
Hypothesis	VAF	P-value	Decision
Panel B. Indirect Effect:			
HC → CA → MP	0.4063	<0.001***	H8 is accepted
SC → CA → MP	0.3851	0.068*	H9 is accepted
RC → CA → MP	0.4065	<0.001***	H10 is accepted

Note. VAF value between 20% - 80%

\*, \*\*, and \*\*\* indicate significance at α 10%, 5%, and 1% respectively

Based on the results of the hypothesis testing in Table 6 Panel A. The direct effects show that HC and SC have a significant positive effect on CA. On the other hand, RC has no significant positive effect on CA.

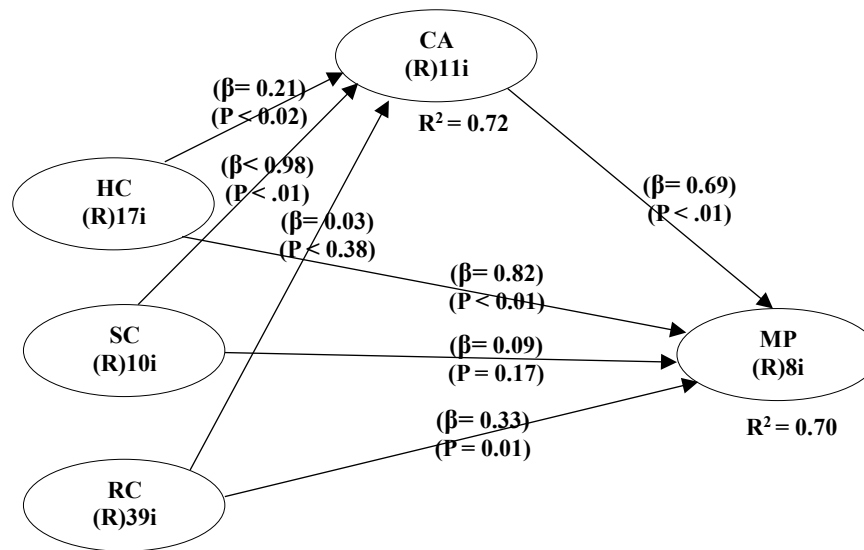
Hypotheses 4, 5, and 7 are accepted, as it has been shown that CA, HC, and RC have a significant positive effect on MP. However, hypothesis 6 is rejected, as it has been shown that SC has no significant positive effect on MP.

VAF calculation was used in testing hypotheses 8 to 10, to determine the size of the mediation effect and whether the competitive advantage variable possesses a mediating role; the following formula was used (Hair et al., 2014):

$$VAF = \frac{\text{Indirect effect}}{(\text{indirect effect} + \text{direct effect})}$$

Based on Table 6 Panel B, the CA variable acts as a partial mediator in the influence of HC, SC, and RC, on MP; H8, H9, and H10 are therefore accepted. The full model of the research is shown in Figure 2 below:

**Figure 2** Inner and Outer Model Outputs



### Effects of Human Capital on Competitive Advantage

In line with the RBV theory, owners and employees of batik MSEs who have the ability to adapt and who are creative in promoting and selling their products, will strengthen CA, especially during the pandemic. Most of the Lasem batik *tulis* MSEs market their products digitally through social media, online market places, etc. This finding supports Tjahjadi et al. (2020) and Nurlela (2021) who prioritize the role of HC. Changes in behavior and the ability of MSE entrepreneurs to do transactions digitally allowed some businesses to increase sales 10 times during the COVID-19 pandemic. The willingness of entrepreneurs to take part in several trainings and comparative studies elsewhere broadens and enriches their business perspectives. The knowledge gained can be used to create unique advantages, while HC as an intangible asset can be easily transferred into funds or other tangible assets.

### Effects of Structural Capital on Competitive Advantage

The existence of guidelines that are both written and unwritten for owners and employees in carrying out their duties will make them disciplined and responsible, leading to effective and efficient communication in the business. This happens because usually the employees who work in the Lasem batik *tulis* MSEs are neighbors. Even though there is no detailed organizational structure, they are able to work according to their respective responsibilities (for example: drawing batik patterns and motifs, coloring, losing “*nglorot*” colors, packaging, etc.). Innovation capital, which is one of the SC elements, is found in MSE batik *tulis*, as it requires high artistic skills and creativity to produce products that are different from other regional batik. The results of this study are in accordance with the results of research by Yaseen et al. (2016) as well as St-Pierre and Audet (2011).

### Effects of Relational Capital on Competitive Advantage

In the context of MSE batik *tulis*, that is filled with historical and cultural values which strongly contributes to each process and product, not all inputs, suggestions, or knowledge, obtained from external parties will be suitable for internal applications. Entrepreneurs already have standards and guidelines passed down and implemented from previous generations. In

addition, the barrier of entry to become a reliable batik maker is also not easily obtained from the general public. Most batik skills are passed down from parents who used to also work as employees. This fact may be what distinguishes batik *tulis* from the trend that occurs in MSE batik printing, whereby it can be seen that the industry no longer adheres to the batik standards of the previous generation and does not really require reliable batik skills. This finding is in line with Hormiga et al. (2011), who stated that RC does not contribute to CA.

### **Effects of Competitive Advantage on MSE Performance**

The findings of this study ascertain that the CA of the Lasem batik *tulis* MSEs is considered to have special features in terms of the cultural philosophy inherent in entrepreneurs, production processes, and finished products, which are difficult to imitate and transfer to others. In addition, entrepreneurs have the ability to adapt, especially to changes in resource management in a dynamic environment, as well as regarding relationships with business partners, access to information, and marketing strategies which are able to contribute positively to business achievements. These results support Eloranta and Turunen (2015) and Correia et al. (2020).

### **Effects of Human Capital on MSE Performance**

The existence of human resources as initiators, executors, and decision makers, is an important asset in supporting business success, especially for SMEs engaged in a creative industry sector such as batik. As observed from the HC aspect, Lasem batik *tulis* entrepreneurs are high in all aspects including capability, development and low retention, and the behavior of their workforce. Facing a pandemic period requires effort and strategies outside of the existing habits to be able to adapt to and overcome its challenges. This is allegedly related to the experience of running a business which has faced many ups and downs, for many years. In addition, the batik *tulis* business, which is a hallmark of Lasem's superior products, has inspired HC to become stronger. The results of this study are in line with research by Skuras et al. (2005).

### **Effects of Structural Capital on MSE Performance**

The control of infrastructure or business support infrastructure was not able to boost MPs during the pandemic. SC is static and embedded in the business entity even though the people involved in the business may have changed. Even though employees have high knowledge, if they are not supported by adequate infrastructure (for example: mastery of new technology in batik making, complete production equipment, and equipment that is in a good condition) then SC does not produce performance. An effective SC must be built through business processes, updated information, organizational culture, and an improved SME administration system. This finding is in line with Tseng and James Goo (2005), and Hejazi et al. (2016).

### **Effects of Relational Capital on MSE Performance**

The success or failure of a business entity cannot be separated from the direct or indirect relationships between related parties. Empirical data supports this explanation, in that the relationship level of Lasem batik *tulis* entrepreneurs with external parties is in the high category; this has an impact on increasing the financial, non-financial, and entrepreneurial performance during the pandemic. One of the parties directly related to the company is the

customers, as business activities are triggered by market needs. When the uniqueness of the product is able to meet customer needs, satisfaction and loyalty will emerge so that it leads to the acquisition of economic and non-economic results for MSEs. This supports the findings of Corvino et al. (2019).

### **Mediating Effect of Competitive Advantage on the Human Capital–MSE Performance Relationship**

In the context of MSEs, HC is an important input in the creation of a CA, whose role is to plan and execute other resources owned by the company in order to anticipate various business dynamics in order to survive. In the context of Lasem batik *tulis* MSEs, entrepreneurs should be willing to develop their competencies together with employees, so that they are able to face the pandemic condition which does not have a clear ending in sight. When HC is superior, CA becomes strong. Further CA will encourage MP as evidenced by Kamukama et al. (2017) and Hamadamin and Atan (2019).

### **Mediating Effect of Competitive Advantage on the Structural Capital–MSE Performance Relationship**

Knowledge transfer refers to the dissemination of know-how among members of the organization, strengthening business capabilities in facing business challenges. Effective transfer of knowledge will result in unique adaptive business strategies in times of crisis (Gogan et al., 2015). The values, local culture, and tacit knowledge, that become integrated in a business entity will produce higher achievements that are able to strengthen the CA. The results of this study fill a gap in previous studies on how SC affects MP. Tirtayasa et al. (2021) revealed that SC has a positive effect on MP, but Mukoffi (2021) found no such evidence. By including CA as a mediating variable, this study confirms that it plays a role in bridging the SC-MP relationship.

### **Mediating Effect of Competitive Advantage on the Relational Capital–MSE Performance Relationship**

The Lasem batik *tulis* business has been part of the local community culture for a long time, such that it has become a strong foundation in building connections between entrepreneurs and various stakeholders. This historical attachment is a strong asset to entrepreneurs who benefit from the information and resources owned by other parties, strengthening the advantages that have been built. Lasem batik *tulis* SMEs with a differentiation-based strategy offer unique products that are high quality and durable, so that customers want to buy them, resulting in increased business profits. The rigid SC must be modified by the entrepreneur to be adaptive to the environment. Furthermore, a CA will encourage the achievement of superior performance compared to competitors (Anwar, 2018).

## **CONCLUSION AND RECOMMENDATIONS**

This study provides theoretical contributions in the form of developing the literature on RBV and RBE theories in the context of MSEs in the creative industry sector. The existence of a CA which mediates the indirect effects of HC, SC, and RC on MP, as well as having a direct effect on performance, substantiates that a business unit is able to survive in unexpected shock situations if it has a strong CA.

Practically speaking, this study provides a holistic understanding of the strategy for increasing Lasem's batik *tulis* business in times of a crisis through the mediating effect of CA. The findings of the study suggest that MSEs must act proactively, so that CA becomes stronger through the influence of HC and SC. To strengthen HC, requires capability, development, and retention, as well as the responsible behavior of batik producers. Meanwhile, SC is strengthened by developing creative batik products and ideas as well as replacing outdated batik production facilities. The uniqueness of the business or its CA is what is able to save a business in the midst of a crisis, for example: the elements of the combination of Chinese and indigenous cultures that are deep in Lasem batik *tulis*, the Lasem batik *tulis* patterns that are different from other regions, and the quality of the materials and products which are durable compared to batik *cap* or printed batik. Meanwhile, external relations with competitors and suppliers do not automatically affect CA as Lasem's batik is thick with cultural elements and historical values that are ingrained for entrepreneurs. However, these business relationships have a positive impact on increasing MP. The existence of competition with batik from other regions and support from suppliers in terms of the material quality, price, and timeliness of material delivery are able to support the improvement of MP's performance during the COVID-19 pandemic.

Furthermore, MSEs can manage non-financial internal resources effectively, efficiently, and creatively to increase MP through a CA. Business success depends on the CA, while the CA is influenced by HC, SC, and RC.

This study has several limitations. First, the majority of businesses included in the sample in this study were micro-scale business units, while there are differences in resource ownership, being owned by small and medium-scale business units (for example, business networks and established business management) compared to firms owned by micro-businesses. Second, this study has limitations in terms of generalizing findings for the MSE scope, considering that the respondents in this study consisted of micro and small-scale businesses. Therefore, different findings may be obtained if future research divides respondents based on their business scale, namely micro, small, and medium sized enterprises. Thus, future research is recommended to test the robustness of this model by comparing the findings in three sub-samples of business units (micro, small and medium). This is useful for formulating policies for stakeholders in order to strengthen the CA which ultimately improves business performance.

## REFERENCES

- Abdirahman, M., & Tarique, R. (2020). Impact of structural capital and innovation capability on firm performance, (Case study of Pharma industry in Karachi-Pakistan). *The Strategic Journal of Business Change Management*, 7(1), 736-748.
- Abdullah, D. F., & Sofian, S. (2012). The relationship between intellectual capital and corporate performance. *Procedia-Social and Behavioral Sciences*, 40, 537-541. <https://doi.org/https://doi.org/10.1016/j.sbspro.2012.03.227>
- Alawneh, A. A., Abuali, A., & Almarabeh, T. Y. (2009). The role of knowledge management in enhancing the competitiveness of small and medium-sized enterprises (SMEs). *Communications of the IBIMA*, 10(13), 98-109.
- Alvarez, S. A., & Busenitz, L. W. (2001). The entrepreneurship of resource-based theory. *Journal of Management*, 27(6), 755-775.
- Anwar, M. (2018). Business model innovation and SMEs performance—does competitive advantage mediate? *International Journal of Innovation Management*, 22(07), 1-31. <https://doi.org/10.1142/S1363919618500573>

- Azzahra, K. (2018). The Influence of Human Capital, Structural Capital and Relational Capital to the Performance of Cooperation with Competitive Advantage as Intervening Variable of Cooperation in South Tangerang *Economic and Accounting Journal*, 1(1), 24-34. <https://doi.org/https://doi.org/10.32493/eaj.v1i1.y2018>
- Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27(6), 643-650. <https://doi.org/10.1177/014920630102700602>
- Barney, J. B., & Arkan, A. M. (2001). The resource-based view: Origins and implications. *Handbook of strategic management*, 124188.
- Basiroen, V., & Lapian, M. (2016). Implementation of design thinking process in creating new batik lasem design. *Pertanika Journal of Social Sciences and Humanities*, 24, 119-136.
- Bhattacharjee, D., & Dey, M. (2015). Competitive profile matrix: a theoretical review. *Abac journal*, 35(2), 61-70.
- Bhattacharyya, S. S., & Jha, S. (2015). Mapping micro small and medium enterprises from the resource-based view and dynamic capability theory perspectives and innovation classification. *International Journal of Entrepreneurship Small Business Economics*, 25(3), 331-350.
- Cardeal, N., & Antonio, N. S. (2012). Valuable, rare, inimitable resources and organization (VRIO) resources or valuable, rare, inimitable resources (VRI) capabilities: What leads to competitive advantage? *African Journal of Business Management*, 6(37), 10159-10170. <https://doi.org/10.5897/AJBM12.295>
- Cater, T., & Pucko, D. (2005). How competitive advantage influences firm performance: The case of Slovenian firms. *Economic Business Review for Central South-Eastern Europe*, 7(2), 119-135.
- Chahal, H., & Bakshi, P. (2014). Effect of intellectual capital on competitive advantage and business performance: Role of innovation and learning culture. *International Journal of Learning and Intellectual Capital*, 11(1), 52-70. <https://doi.org/https://doi.org/10.1504/IJLIC.2014.059227>
- Correia, R. J., Dias, J. e. G., & Teixeira, M. S. (2020). Dynamic capabilities and competitive advantages as mediator variables between market orientation and business performance. *Journal of Strategy and Management*, 14(2), 187-206. <https://doi.org/10.1108/JSMA-12-2019-0223>
- Corvino, A., Caputo, F., Pironti, M., Doni, F., & Martini, S. B. (2019). The moderating effect of firm size on relational capital and firm performance: evidence from Europe. *Journal of Intellectual Capital*, 20(4), 510-532. <https://doi.org/10.1108/JIC-03-2019-0044>
- Darmawan, D., Mardikaningsih, R., & Hadi, S. (2018). The effect of service quality, customer satisfaction and corporate image on customer loyalty in the banking sector in Indonesia. *IOSR Journal of Business and Management* 6(11), 46-51. <https://doi.org/10.9790/487X-1911064651>
- Davenport, T. H., De Long, D. W., & Beers, M. C. (1998). Successful knowledge management projects. *MIT Sloan Management Review*, 39(2), 43.
- Delery, J. E., & Roumpi, D. (2017). Strategic human resource management, human capital and competitive advantage: is the field going in circles? *Human Resource Management Journal*, 27(1), 1-21.
- Delery, J. E., & Roumpi, D. (2019). Retaining valued human capital: a commentary on the role of firm-specificity as a mobility constraint. In *Handbook of Research on Strategic Human Capital Resources*. Edward Elgar Publishing.
- Edvinsson, L., & Malone, M. S. (1997). *Intellectual capital: Realizing your company's true value by finding its hidden roots*. HarperBusiness.



- Eloranta, V., & Turunen, T. (2015). Seeking competitive advantage with service infusion: a systematic literature review. *Journal of Service Management*, 26(3), 394-425. <https://doi.org/https://doi.org/10.1108/JOSM-12-2013-0359>
- Fernández-Olmos, M., & Ramírez-Alesón, M. (2017). How internal and external factors influence the dynamics of SME technology collaboration networks over time. *Technovation*, 64-65, 16-27. <https://doi.org/https://doi.org/10.1016/j.technovation.2017.06.002>
- Gade, S. (2018). MSMEs' Role in Economic Growth—a Study on India's Perspective. *International Journal of Pure Applied Mathematics*, 118(18), 1727-1741. <http://www.ijpam.eu>
- Gogan, M.-L., Duran, D. C., & Draghici, A. (2015). Structural capital-A proposed measurement model. *Procedia economics finance*, 23, 1139-1146. <https://core.ac.uk/download/pdf/82280931.pdf>
- Hair, J. F. J., Sarstedt, M., Hopkins, L., & Volker, G. K. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), 106-121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Hamadamin, H. H., & Atan, T. (2019). The impact of strategic human resource management practices on competitive advantage sustainability: The mediation of human capital development and employee commitment. *Sustainability*, 11(20), 1-19. <https://doi.org/https://doi.org/10.3390/su11205782>
- Handoko, B. L., Aryanto, R., & So, I. G. (2015). The impact of enterprise resources system and supply chain practices on competitive advantage and firm performance: Case of Indonesian companies. *Procedia Computer Science*, 72, 122-128. <https://doi.org/10.1016/j.procs.2015.12.112>
- Hejazi, R., Ghanbari, M., & Alipour, M. (2016). Intellectual, human and structural capital effects on firm performance as measured by Tobin's Q. *Knowledge Process Management*, 23(4), 259-273. <https://doi.org/https://doi.org/10.1002/kpm.1529>
- Hormiga, E., Batista-Canino, R. M., & Sánchez-Medina, A. (2011). The impact of relational capital on the success of new business start-ups. *Journal of Small Business Management*, 49(4), 617-638.
- Jatmiko, B., Udin, U., Raharti, R., Laras, T., & Ardhi, K. F. (2021). Strategies for MSMEs to Achieve Sustainable Competitive Advantage: The SWOT Analysis Method. *The Journal of Asian Finance, Economics and Business*, 8(3), 505-515.
- Kamukama, N., Kyomuhangi, D. S., Akisimire, R., & Orobias, L. A. (2017). Competitive advantage: Mediator of managerial competence and financial performance of commercial banks in Uganda. *Journal of Economic and Management Studies*, 8(2), 221-234. <https://doi.org/10.1108/AJEMS-10-2016-0142>
- Kamukama, N., & Sulait, T. (2017). Intellectual capital and competitive advantage in Uganda's microfinance industry. *African Journal of Economic Management Studies*, 8(4), 498-514. <https://doi.org/doi.org/10.1108/AJEMS-02-2017-0021>
- Keskin, H., Şentürk, H. A., Tatoglu, E., Gölgeci, I., Kalaycioglu, O., & Etlioglu, H. T. (2021). The simultaneous effect of firm capabilities and competitive strategies on export performance: the role of competitive advantages and competitive intensity. *International Marketing Review*. <https://doi.org/https://doi.org/10.1108/IMR-09-2019-0227>
- Kucharčíková, A. (2011). Human capital—definitions and approaches. *Human Resources Management & Ergonomics*, 5(2), 60-70.
- Kurniawati, E., Idris, I., Handayati, P., & Osman, S. (2021). Digital transformation of MSMEs in Indonesia during the pandemic. *Entrepreneurship and Sustainability Issues*, 9(2), 316. [https://doi.org/http://doi.org/10.9770/jesi.2021.9.2\(21\)](https://doi.org/http://doi.org/10.9770/jesi.2021.9.2(21))

- Liu, X., Shou, Y., & Xie, Y. (2013). The role of intermediary organizations in enhancing the innovation capability of MSMEs: evidence from a Chinese case. *Asian Journal of Technology Innovation*, 21(sup2), 50-61. <https://doi.org/https://doi.org/10.1080/19761597.2013.819246>
- Mukoffi, A. (2021). Karakteristik wirausaha, modal usaha dan kecanggihan teknologi terhadap kinerja UMKM di masa pandemi Covid-19. *Jurnal Paradigma Ekonomika*, 16(2), 235-246.
- Nitzl, C. (2016). The use of partial least squares structural equation modelling (PLS-SEM) in management accounting research: Directions for future theory development. *Journal of Accounting Literature*, 37, 19-35.
- Niwash, M. N. K., Cek, K., & Eyupoglu, S. Z. (2022). Intellectual Capital and Competitive Advantage and the Mediation Effect of Innovation Quality and Speed, and Business Intelligence. *Sustainability*, 14(6), 3497. <https://doi.org/https://doi.org/10.3390/su14063497>
- Nurlela, N. (2021). E-Commerce, Solusi di Tengah Pandemi COVID-19. *Jurnal Simki Economic*, 4(1), 47-56. <https://jipied.org/index.php/JSE>
- Obeidat, U., Obeidat, B., Alrowwad, A., Alshurideh, M., Masadeh, R., & Abuhashesh, M. (2021). The effect of intellectual capital on competitive advantage: the mediating role of innovation. *Management Science Letters*, 11(4), 1331-1344. <https://doi.org/https://doi.org/10.5267/j.msl.2020.11.006>
- Onofrei, G., Nguyen, H. M., Zhang, M., & Fynes, B. (2020). Building supply chain relational capital: The impact of supplier and customer leveraging on innovation performance. *Business Strategy and the Environment*, 29(8), 3422-3434.
- Panjaitan, D., Lesmana, D., & Maimunah, M. (2018). Effect of Use of Management Accounting Systems on Competitive Advantages: Business Unit Performance as a Mediator (Study of MSMEs in Palembang City). *Journal of Accounting Strategic Finance*, 1(1), 33-44.
- Prakash, B., Kumar, I., & Verma, J. K. (2021). Barriers and potential solutions for MSMEs in developing economies: Evidence from India. *Problems and Perspectives in Management*, 19(4), 325-337. [https://doi.org/10.21511/ppm.19\(4\).2021.26](https://doi.org/10.21511/ppm.19(4).2021.26)
- Radomska, J., Wołczek, P., & Szpulak, A. (2020). Injecting courage into strategy: the perspective of competitive advantage. *European Business Review*, 33(3), 505-534. <https://doi.org/https://doi.org/10.1108/EBR-12-2019-0306>
- Rana, A., & Tiwari, R. (2014). MSME sector: Challenges and potential growth strategies. *International Journal of Entrepreneurship Business Environment Perspectives*, 3(4), 1428-1432.
- Rita, M. R., & Thren, A. T. (2019). A three-dimensional model of MSME performance: an agenda for further research. *BISMA*, 12(1), 1-14. <https://doi.org/10.26740/bisma.v12n1.p1-14>
- Sadalia, I., Irawati, N., & Syafitri, I. (2017). The Influence of Intellectual Capital on Competitive Advantage on Universities in Medan City. *Advances in Economics, Business and Management Research (AEBMR)*, 46(1), 559-602. <https://doi.org/https://doi.org/10.1108/14691931211225715>
- Skuras, D., Meccheri, N., Moreira, M. B., Rosell, J., & Stathopoulou, S. (2005). Entrepreneurial human capital accumulation and the growth of rural businesses: a four-country survey in mountainous and lagging areas of the European union. *Journal of Rural Studies*, 21(1), 67-79.
- St-Pierre, J., & Audet, J. (2011). Intangible assets and performance: Analysis on manufacturing SMEs. *Journal of Intellectual Capital*, 12(2), 202-223. <https://doi.org/https://doi.org/10.1108/14691931111123395>

- Tirtayasa, S., Nadra, I., & Khair, H. (2021). Strategi Pemasaran Terhadap Peningkatan Kinerja UMKM dimoderasi Teknologi pada masa Pandemi Covid-19. *Jurnal Ilmiah Manajemen dan Bisnis*, 22(2), 245-260. <https://doi.org/10.30596/jimb.v22i2.7395>
- Tjahjadi, B., Soewarno, N., Nadyaningrum, V., & Aminy, A. (2020). Human capital readiness and global market orientation in Indonesian Micro-, Small-and-Medium-sized Enterprises business performance. *International Journal of Productivity Performance Management*. <https://doi.org/10.1108/IJPPM-04-2020-0181>
- Tseng, C. Y., & James Goo, Y. J. (2005). Intellectual capital and corporate value in an emerging economy: empirical study of Taiwanese manufacturers. *R & D Management*, 35(2), 187-201.
- Wisnubrata, D. B. (2023). Regenerasi Perajin dari Generasi Muda Jadi Solusi Pelestarian Batik. <https://lifestyle.kompas.com/read/2023/10/03/194144720/regenerasi-perajin-dari-generasi-muda-jadi-solusi-pelestarian-batik?page=all>
- Yaghoubi, N.-M., Salehi, M., & Moloudi, J. (2011). Improvement of organizational entrepreneurship by using social capital. *Middle-East Journal of Scientific Research*, 8(2), 471-478.
- Yaseen, S. G., Dajani, D., & Hasan, Y. (2016). The impact of intellectual capital on the competitive advantage: Applied study in Jordanian telecommunication companies. *Computers in Human Behavior*, 62, 168-175.