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Businesses Performance and The Competitiveness of The "Sasak" Woven Fabric Industry: The Impact Innovation of Capability, Creativity, and Value Creation

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Abstract: The environment is changing rapidly. This requires companies to improve innovation of capability, create value-added products and be creative. This study purpose to analyze the effect of innovation of capability, value creation, creativity on the performance and competitiveness of an industry. This research is centered on the "Sasak" woven fabric industry center in Central Lombok Regency, Nusa Tenggara Barat Province. 126 craftsmen were used as respondents. Data collection is done through observation and questionnaires. Data analysis using SEM-PLS. This study found that innovation of capability affects performance. Value creation affects competitiveness. Creativity affects competitiveness. Therefore, SMEs need to improve their innovation of capability, SMEs need to be oriented towards learning, continuous training, and organizational collaboration.

Index Terms: Innovation of capability, creativity, value creation, performance, competitiveness

I. INTRODUCTION

Each region needs to develop the creative economy sector in increasingly fierce business competition. The creative economy sub-sector which contributes 14.9% to the Gross Domestic Product is craftsmanship [1]. The batik industry as one of the craftsmanship sub-sectors contributes to the expansion and increase of the labor force. The exports of Batik in (2020) reached US\$ 532.7 million and in the first quarter of 2021, it was US\$ 157.8 million [2]. Kartasmita [3] stated that the batik industry provides more than 200,000 workers in 47,000 business units and is spread across 101 industrial spots in Indonesia. The "Sasak" woven fabric industry is developing on the island of Lombok. The challenges which arise are related to the environment, marketing, and human resources.

The environment is dynamic matters and changes quickly. The company needs to adapt to it by creating innovation, value, and being more creative. This is important for companies to exist and pursue business opportunities in the industry. Several studies have shown a relationship between capability innovation, value creation, and creativity with performance and competitiveness. The innovation of capability affects the performance [4], [5], and [6] and the competitive advantage [4]. Value creation affects performance [7] and [8], and competitiveness [9]. Creativity affects competitiveness [10]. Performance affects competitiveness [11] and [9].

Nusa Tenggara Barat is one of the regions in Indonesia that has a craft-based creative industry. One of them is woven fabrics on the island of Lombok. This industrial spot is in Sade village, Central Lombok district. The village has become an icon of the tourism sector in Nusa Tenggara Barat Province. The woven fabric consists of Songket woven fabric and Ikat woven fabric. Songket is usually colorful and can be made of cotton, silver, or gold thread. Ikat fabric looks more simple and functional. This industry is a cultural heritage, traditional, has a unique and aesthetic. The product is regulated both domestically and abroad. Various problems arise, such as the change of market's demands, the marketing matters especially related to packaging and branding, and human resources. Companies need to run their businesses by increasing innovation of capability, creativity, and Value Creation to improve performance and competitiveness.

II. LITERATURE REVIEW

Innovation of capability

Strategic leaders need to manage innovation as a strategic implementation. Dess, G., *et. al.* [12] define innovation as the use of new knowledge obtained from new technologies, experimental results, creative insights, understanding of creativity, or information related to competition. It is directed to provide additional value for the customers. Studies from [5] show that effective innovation of capabilities that help to deliver more effective innovation results to lead to better performance and will benefit the company management. A study from Rahayu and Magdalena [13] showed that managerial ability, work culture, and innovation ability affect the performance of craftsmen in SMEs. Innovation of capability affects competitive advantage [4]. The formulation of the hypothesis is:

H1: Innovation of capability affects performance

H2: Innovation of capability affects the competitiveness

Value Creation

Mizik and Jacobson [14] explains that to achieve performance and competitive advantage, companies need to involve (a) customer Value Creation, b) the company's ability to limit competitive forces through making products which is difficult to duplicate by competitors. Value creation as the basis for formulating a competitive strategy to achieve sustainable competitive advantage. Values determine demand and affect a firm's competitive position in an industry. Economic value creation is stated as a basis in formulating competitive strategy. Companies are forced to create economic value. This value leads to the differences between the total costs incurred by the company and the willingness of consumers to pay for the products which they bought. Value creation affects performance [7] and [8].

H3: Value creation affects performance

H4: Value creation affects the competitiveness

Creativity

Creativity is one of the factors which have an important role for employees and organizations. According to Al-Ababneh [15] creativity consists of two dimensions, namely the idea of novelty and usefulness. Employees can be creative to generate new ideas in developing products. Creativity can be obtained through learning. Sulaiman, *et.al.* [16] explained that through learning, employees can increase their knowledge and become more creative and share the knowledge. Studies from [10] and Astuty and Suryana [17] show that creativity affects competitiveness. According to [16] the increase of creativity performance leads to competitiveness.

H5: Creativity affects the competitiveness

Performance, Competitive Advantage

Organizations need to focus on improving performance to achieve sustainable competitive advantage. This is due to the rapid changes in the business environment and the increasingly fierce level of competition. According to Shahzad, *et.al.* [18] performance is the aggregate output of all activities carried out by the company. Performance affects competitive advantage [11] and [9].

H6: Performance affects competitive advantage.

Theoretical Framework

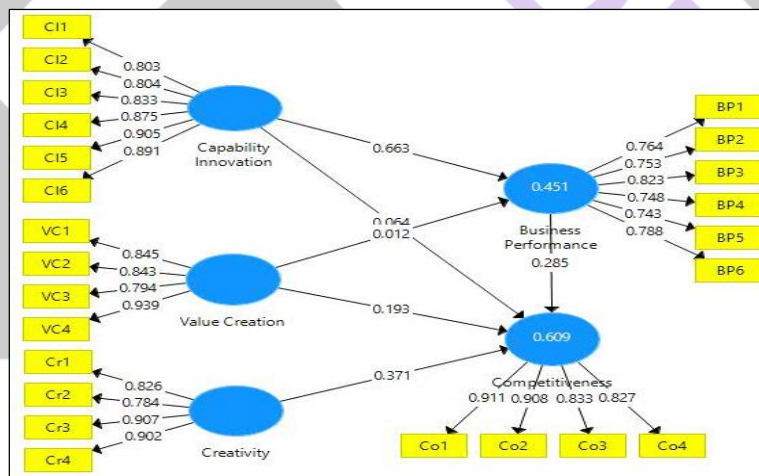


Figure 1. Research Framework

III. RESEARCH METHODS

This type of research is explanatory research. This research was conducted on the island of Lombok. Samples were taken using the *purposive sampling technique*, with criteria such as creative and innovative managers. and is on the island of Lombok. The sample size was determined based on the *Structural Equation Modeling (SEM)* analysis tool. Ghozali and Latan [19] recommends a sample size of 100-200 for the Maximum Likelihood estimation method. SEM-PLS was applied in this study. SEM-PLS can be used to explain whether there is something or there is no relationship between latent variables and to analyze the construct formed with reflection indicator and formative indicator. Observations and interviews with questionnaires were used to collect the main data of the study. Questionnaire items include a description of innovation of capability, *value creation*, *creativity*, *performance*, competitive advantage. Each item is ranked using a Likert scale with a score of 1 to 5 points. The indicator of innovation ability refers to Purwati, *et.al.* [20]. The value creation with indicators refers to Aryanto and Setiawan [21] the creativity indicators refer to [11] the performance refers to Zakaria, *et.al.* [22] and Fatoki [23]. Business performance indicators consist of an aesthetically pleasing product appearance, according to specifications, more creative and innovative, high market share, and resource utilization for optimal results. The competitiveness construct is shaped by indicators such as competitive product quality, products having a good reputation, being able to create profitable relationships with customers, and faster growth.

IV. RESULTS & DISCUSS

Results

The characteristics of the "Sasak" woven fabric craftsmen are dominated by women (78.6%), over 40 years old, (56%), junior high school education (50.8%), has been a craftsman for 12 years (30.2%), talented (81.7%), and the raw materials used are cotton and natural textile dyes (95.2%). Craftsmen have experience and carry out the skills they have learned from their parents and families. This is a hereditary work and cultural heritage.

Confirmatory Factor Analysis

Convergent validity is indicated by the loading factor value of each of these indicator variables [19]. With the provision that the loading factor value is above 0.7 for confirmatory research and above 0.6 for exploratory research. Table 1 shows that all factor loadings are above 0.7. This means that it has met the requirements of convergent validity. Thus, the test called "bootstrapping" can be continued.

Table 1. Outer Loading

	Business Performance	Innovation of Capability	Competitiveness	Creativity	Value Creation
BP1	0.764				
BP2	0.753				
BP3	0.823				
BP4	0.748				
BP5	0.743				
BP6	0.788				
CI1		0.803			
CI2		0.804			
CI3		0.833			
CI4		0.875			
CI5		0.905			
CI6		0.891			
Co1			0.911		
Co2			0.908		
Co3			0.833		
Co4			0.827		
Cr1				0.826	
Cr2				0.784	
Cr3				0.907	
Cr4				0.902	
VC1					0.845
VC2					0.843
VC3					0.794
VC4					0.939

Bootstrapping method in SEM-PLS is needed for further analysis. It aims to determine the level of significance of each indicator variable. The required significance value must be less than 0.05 and the loading factor must be greater than 0.70. As shown in Table 1 above, that all variable indicators meet the requirements of convergent validity because all of the loading factor values are above 0.70. Thus the formation of reflexive indicators has met the requirements and can be tested for further research models. The results of Discriminant validity with cross-loading are shown in Table 2 below.

Table 2. The Result of Discriminant Validity

	Business Performance	Innovation of Capability	Competitiveness	Creativity	Value Creation
Business Performance	0,770				
Innovation of Capability	0,672	0,853			
Competitiveness	0,660	0,670	0,871		
Creativity	0,628	0,726	0,707	0,857	
Value Creation	0,513	0,756	0,601	0,575	0,857

Table 2 shows the value of the loading factor of the creativity construct and the creation of the highest value from others. Table 3 shows that all constructs met the criteria for being reliable. According to [19], composites with reliability values above 0.70 and AVE above 0.50 are said to be reliable.

Table 3. Summary of Composite Reliability and AVE Scores

Variables	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Business Performance	0,865	0,875	0,897	0,593
Innovation of Capability	0,924	0,928	0,941	0,727
Competitiveness	0,893	0,903	0,926	0,758
Creativity	0,879	0,899	0,917	0,734
Value Creation	0,879	0,893	0,917	0,735

Structural Model

To determine the relationship between constructs, construct scores, and R-square, the inner model was used.

Table 4. Coefficient Determination (R – Square)

	R Square	R Square Adjusted
Business Performance	0,451	0,443
Competitiveness	0,609	0,596

The value of the coefficient of determination (R^2) of the construct of competitiveness is 0.609. This shows that value creation, innovation of capability, and creativity explain the competitiveness of 60.9%. The R-square value of performance is 0.451, meaning that Value Creation, innovation of capability explain the performance of 45.1%.

Hypothesis Test

Table 5. Hypothesis Test Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV V)	P Values
Business Performance → Competitiveness	0.285	0.278	0.103	2.773	0.006
Innovation of Capability → Business Performance	0.663	0.668	0.096	6.926	0.000
Innovation of Capability → Competitiveness	0.064	0.064	0.140	0.454	0.650
Creativity → Competitiveness	0.371	0.377	0.093	4.006	0.000
Value Creation → Business Performance	0.012	0.012	0.097	0.125	0.900
Value Creation → Competitiveness	0.193	0.198	0.094	2.057	0.040

P-value is used to determine whether a proposed hypothesis is accepted or rejected. Of the six proposed hypotheses, four were accepted. The four hypotheses are H1, H4, H5, H6. The rejected hypotheses are H2 and H3. The hypothesis is accepted with a significance of < 0.05 %, and t count $>$ t table. For capability innovation, t -count = 6.926 $>$ 1.96. This means that innovation of capability is significant effect on business performance. Value creation has a significant effect on competitiveness where the value of t -count or t -test = 2.057 $>$ 1.96. Thus, hypothesis 4 is accepted. Creativity has a significant effect on competitiveness, where t -count = 4.006 $>$ 1.96. So hypothesis 5 is also accepted. Business performance has a significant effect on competitiveness, where t -count = 2.057 $>$ 1.96. So hypothesis 6 is accepted.

Discussion

The "Sasak" woven fabric industry is one of the industries that is wise and environmentally friendly. This industry uses natural raw materials such as teak, waru, and so on. This industry attracts local and foreign tourists to visit Lombok Island. The handicrafts are based on local wisdom and become a reflection of the cultural identity of the area. Thus, this industry has the potential to be developed on the island of Lombok. This research focuses on "Sasak" woven fabric on the island of Lombok. This product is unique, utilizes natural dyes, and requires creative and innovative people to do it. This research contributes to business people to determine the right business strategy in winning the competition in a dynamic environment.

There are six hypotheses developed and tested in this study. The first hypothesis (H1) is accepted. This shows that innovation of capability affects performance. Research from [4], [5], and [6] supports the results of this study. Innovation capabilities related to learning abilities, sources of innovation, efforts to adapt technology, always put forward a culture of innovation that leads to continuous improvement, and the need for support from other institutions.

The fourth hypothesis (H4) is accepted. This shows that value creation affects competitiveness. Value creation plays a role in creating competitiveness through the company's ability to produce products according to customer desires, products are designed to order, prioritize speed in responding to customer desires, and still maintain the quality of the products produced. The results obtained in this study are supported by studies from [7] and [8].

The fifth hypothesis (H5) from this study is accepted, where creativity affects competitiveness.. This is related to the breadth of ideas from craftsmen in creating batik motifs, which are original, have their characteristics, and vary in terms of color. Research from [10] and [17] supports the results of this study.

The last accepted hypothesis is the sixth hypothesis (H6). This shows that performance affects competitiveness. Research from [11] and [9] supports the results of this study. Associated with business performance leads to a) the appearance of products that have aesthetics, (b) the products are following the specifications desired by customers, (c) employees have higher creativity compared to competitors, (d) in terms of company innovation more innovative compared to competitors; (e) has a higher market share than competitors; (f) utilize resources optimally to produce optimal output as well.

V. CONCLUSIONS AND RECOMMENDATIONS

From the research results obtained, the theoretical and managerial implications. The theoretical implication is to strengthen the concept of theory and empirical data to support research that has been done by previous researchers. Theoretically, this has implications for understanding the determinants of the performance and competitiveness of SMEs.

To increase innovation of capability, SMEs need to make progressive changes in management through learning. Learning orientation is mainly related to (a) there is a commitment to learning from all people in the organization, (b) there is a shared vision and goals; (c) open-mindedness, and (d) knowledge sharing within the organization. SMEs also need to know the factors that influence learning such as readiness to learn, motivation to learn, interest in learning, attention to learning, places to practice and practice in learning, fatigue, and boredom, the role of intelligence in learning, talent, and learning, attitudes and learning, the influence of circumstances emotional and the role of family and culture in learning.

In terms of craftsman creativity, SMEs need to do (a) learning that leads to higher levels of thinking such as creativity and critical thinking. (b) n raise awareness of business actors to create new ideas, (c) improve the ability of craftsmen to make both ikat and songket weaving. Weaving is a technique for making ornaments on a woven fabric by tying the warp or weft threads before the threads are dyed or woven. Songket weaving is a weaving technique by adds other materials to the fabric structure. Additional materials commonly used are gold, silver, and copper threads.

In terms of Value creation, SMEs need to collaborate with organizations such as collaboration with customers to create product and service innovations, collaboration with the government, and collaboration with competitors. For example, collaboration with customers regarding color and design. Collaboration with the government, for example, is related to new technology. SMEs are still limited in producing products and still use non-machine looms (ATBM), namely sectors where workers sit on the floor, collaborate with marketing intermediaries such as Artshop to market products. This collaboration is very important because of the rapidly changing environment. The goal is to create product value, service, employee value, and image value that consumers expect from a particular market offering.

REFERENCES

- [1] Uno, S., *Sumbang PDB 1100T, Sandiaga Yakini Ekonomi Kreatif Lokal Mampu Mendunia*. <https://bisnis.tempo.co/read/1424285/sumbang-pdb-rp-1-100-t-sandiaga-yakin-ekonomi-kreatif-lokal-mampu-mendunia>, 2021
- [2] Kemenperin, *Kemenperin Republik Indonesia*, www.kemenperin.go.id, 2021
- [3] Kartasasmita, A., *Industri Batik Jadi Salah Satu Sektor Penyokong Pertumbuhan PDB Nasional*, *Gatra*, 2021
- [4] Sulistyono, H. and Ayuni, S., *Competitive advantages of SMEs: The roles of innovation capability, entrepreneurial orientation, and social capital*. *Contaduría Administración*, 65(1), 2020
- [5] Rajapathirana, R. P. J., and Hui, Y., *Relationship between innovation capability, innovation type, and firm performance*. *Journal of Innovation & Knowledge*, 3(1), 2018, p. 44–55.
- [6] Hoang, C. C. and NGOC, B. H., *The Relationship between Innovation Capability and Firm's Performance in Electronic Companies, Vietnam*. *The Journal of Asian Finance, Economics, and Business*, 6(3), 2019, p. 295–304.
- [7] Pamoengkas, I., *Market orientation and value creation in improving business performance of the fertilizer industry in Indonesia*, *European Research Studies Journal* XXIII (Issue 1), February 2020:143-152
- [8] Abdullah, Y., and Rosliyati, A., *The Product Market Strategy, Value Creation, and Competitive Advantages as a Determinant Factor of Marketing Performance*. *International Journal of Supply Chain Management*, Vol, 9(3), 13, 2020
- [9] Albushairi, S. A., Huda, N., and Ahmad, A. B., *Improving Performance, Competitiveness, and Well-being in the Creative Industry based on Local Wisdom*, *International Journal of Innovation, Creativity, and Change (IJICC)*, 15(9), 2021

- [10] Sijabat, E. A. S., Nimran, U., Utami, H. N., and Prasetya, A., The Effects of Dynamic Capabilities, Entrepreneurial Creativity and Ambidextrous Innovation on Firm's Competitiveness. *The Journal of Asian Finance, Economics, and Business*, 8(1), 2021, p. 711–721
- [11] Sutapa, S., Mulyana, M., and Wasitowati, W., The role of market orientation, creativity and innovation in creating competitive advantages and creative industry performance. *JDM (Jurnal Dinamika Manajemen)*, 8(2), 2017, p. 152–166.
- [12] Dess, G. G., Lumpkin, G., and Eisner, A. B., *Strategic Management :Text and Cases*, McGraw-Hill, 2007
- [13] Rahayu, M., and Magdalena, B., Determinants Factors of Crafters Performance of SMEs at Tapis, Province of Lampung, *Widyakala Journal*, 8(1), 2021
- [14] Mizik, N., & Jacobson, R., Trading off between value creation and value appropriation: The financial implications of shifts in strategic emphasis, *Journal of Marketing*, 67(1), 2003, p. 63–76.
- [15] Al-Ababneh, M., The Concept of Creativity: Definitions and Theories. *International Journal of Tourism & Hotel Business Management*, 2(1), 2020, p. 245–249.
- [16] Sulaiman, I. F., Hashim, C. N., Ibrahim, M. B., Hasan, S. S. S., and Oluwatosin, O. S., Impact of creativity to organizational competitiveness, *International Journal of Humanities and Social Science*, 5(8), 2015, p. 106–113.
- [17] Astuty, E., & Suryana, S., Creative People as a New Source of Competitive Advantage in Creative Industry, *Sebelas Maret Business Review*, 2(1), 2018
- [18] Shahzad, K., Bajwa, S. U., Siddiqi, A. F. I., Ahmid, F., and Sultani, A. R., Integrating knowledge management (KM) strategies and processes to enhance organizational creativity and performance: An empirical investigation. *Journal of Modelling in Management*, Volume 11 (1): 26 – Feb 8, 2016
- [19] Ghozali, I., & Latan, H., *Partial Least Squares Konsep Teknik dan Aplikasi Menggunakan Program SmartPLS 3.0 untuk Penelitian Empiris*, BP. Undip, Semarang, 2015
- [20] Purwati, A., Budiyanto, B., Suhermin, S., and Hamzah, M., The effect of innovation capability on business performance: The role of social capital and entrepreneurial leadership on SMEs in Indonesia. *Accounting*, 7(2), 2021, p. 323–330.
- [21] Aryanto, V. D. W., and Setiawan, M. B., Mediating effect of value creation in the relationship between relational capabilities on business performance, *Contaduría y Administración*, 63(1), November 2017, p. 1-21
- [22] Zakaria, M., Abdulatiff, N. K., and Ali, N., The role of wellbeing on performance in services sector, *Procedia-Social and Behavioral Sciences*, 164, 2014, p. 358–365.
- [23] Fatoki, O., Green entrepreneurial orientation and firm performance in South Africa, *Entrepreneurship and Sustainability Center*, vol. 7(1), September 2019, pages 247-262.