

Building Organizational Performance Through Collaborative Networks

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Abstract. Small and medium enterprises contribute to the Indonesian economy because this industry is able to absorb 97% of the workforce and contribute 62% to GDP. Creative industry is an industry that is part of SMEs that has started to develop in the last 2 decades, however, the development of the creative industry still has many problems, especially human resources, resulting in weak competitiveness and low performance. The objective of this research is to assess the impact of collaborative networks on innovation capabilities and competitive advantages, influencing the overall performance of craft sector organizations in the city of Medan. Purposive sampling is employed for the sampling method, and Multiple Linear Regression is utilized for data analysis. The findings indicate that collaborative networks exert a noteworthy influence on both innovation capabilities and competitive advantages. However, collaborative networks do not demonstrate a noteworthy influence on organizational performance. It is important to highlight that the pivotal determinants of organizational performance lie in the ability to innovate and the attainment of a competitive advantage.

Keywords: Collaborative Networks, Innovation Capability, Customer Relationship Management, Competitive Advantage, and Business Performance.

1. Introduction

The creative industry competition is increasingly competitive, small and large creative industries that want to continue to exist and progress must improve organizational capabilities through a learning process, carry out transfers of knowledge and technology on an ongoing basis (Argote et al., 2021; Marchiori & Franco, 2020; Scuotto et al., 2020). The industry must continue to innovate that can create a sustainable competitive advantage. The dynamics of competition in the global market have transitioned from being centered solely on price and quality to a paradigm of network competition. Consequently, industries are compelled to focus on technological advancements, innovation, and creativity as key elements to foster a competitive advantage (Hossain et al., 2022; Prasanna et al., 2019).

Crucial elements for establishing a competitive advantage involve the incorporation of diverse innovations, encompassing technological advancements, process enhancements, and effective management strategies. These endeavors are essential for aligning with market demands and ensuring the company's capability to meet them. (Baierle et al., 2020; H. Li et al., 2021). A competitive advantage signifies a company's superior performance compared to its industry rivals (Kryscynski et al., 2021). Industries that can deliver high-quality products at

competitive prices, while also outpacing competitors in terms of speed and alignment with consumer preferences, are positioned to gain a competitive edge. Meanwhile, competitive advantage and sustainable performance can be achieved if the creative industry continuously innovates according to environmental dynamics. Competitive advantage will improve business performance (Haseeb et al., 2019). Based on data from the Ministry of Tourism and Creative Industries, the weaknesses of MSMEs occur in (1) weak access to productive resources, (2) low quality human resources (47.9% graduated from elementary school), (3) low productivity, (4) high transaction costs, and (5) low competitiveness.

Resource capabilities are based on information, tangible and intangible processes, and development over time through complex interactions between resources (Silva & Oliveira, 2020). Capability is a company's strength to increase competitiveness which is not easy for other companies to match or imitate (Feng et al., 2020). Capability is also expressed as the ability to organize resources, processes and the ability to convey value. Capabilities can include communication skills, engagement and a strong commitment to working within organizational boundaries. Capabilities can also be in the form of intermediary assets that companies develop to increase the productivity of their resources, such as flexible strategies and protection of the company's final goods and services (Nayal et al., 2022). Strategic assets are a set of resources and capabilities that are difficult to trade, difficult to replicate, difficult to obtain, specific and unique, owned by a company as a competitive advantage (Chadwick & Flinchbaugh, 2021).

Relational capability as a form of organizational dynamic capability is deliberately used to create, expand or modify, as well as add or enlarge the company's resource base by incorporating various resources owned by partners (Mamédio et al., 2019). Meanwhile, Mamédio et al. (2019) see relational capabilities as intangible resources capable of creating social relationships, which organizations can use to facilitate any activity to achieve competitive advantage. Relational capabilities are needed by organizations because they are able to create and provide added value to the organization through creating relationships with various specific resources. Relational capabilities provide access to complementary capabilities and increase access to knowledge and information, learning processes for organizations and are able to present effective management mechanisms that can limit transaction costs between organizations involved in collaborations carried out by these various organizations (Antunes & Pinheiro, 2020).

It is assumed that these various advantages will greatly affect differences in performance between organizations (Hamadamin & Atan, 2019). This is also reinforced by various empirical evidence, which in recent years, the trend shows that more and more organizations are substantially increasing the use of cooperative relationships or alliances in their activities. Relational capability is a company's ability to interact with business partners, and understand specific information related to networks to gain profit. Another common feature of relational capabilities is the development of a company's ability to communicate, collaborate and manage mutually beneficial business relationships (Sun et al., 2020).

Innovation as an effective means of increasing product competitiveness requires competitive resources, both in the fields of human resources, finance, technology, so the creative industry, with all its limitations, must be able to build good relationships (Prasanna et al., 2019; Rasool et al., 2019). The swift changes in the environment, particularly in the realm of technology, compel creative industries to enhance their creativity and innovation to effectively adapt to technological advancements. It is imperative to promptly elevate the competitiveness of the creative industry to effectively compete in the global market and the digital era. Failure to do so may lead to a decline in numerous creative industries, rendering

them unable to contend with products from other countries, should they be unprepared for the competitive landscape.

Increasing organizational capabilities through learning processes, transferring knowledge and technology through a network of relationships with stakeholders is the right way to develop sustainable innovation (Aboelmaged & Hashem, 2019). Hence, cultivating an entrepreneurial mindset among participants in the creative industry, coupled with a robust collaborative network, emerges as a solution for fostering innovation, gaining a competitive advantage, and achieving superior performance (Ferreira et al., 2020).

It is essential to undertake research that examines the connection among collaborative networks, entrepreneurial orientation, innovation capabilities, competitive advantage, and performance within the creative industry. This research is essential for obtaining reliable insights into the significance of collaborative relationships and entrepreneurial orientation in fostering innovation and achieving excellence, competitiveness, and superior performance in the creative sector. The anticipated outcome of this research is to provide valuable contributions to the advancement of the creative industry in addressing global market challenges and, consequently, enhancing overall competitiveness.

2. Methods

Explanation of the relationship between variables will use a quantitative approach (Hobson, 2019; Sürücü & Maslakçı, 2020). This research aims to investigate how collaborative networks impact the enhancement of innovation capabilities and competitive advantage, and how these factors, in turn, influence the overall performance of creative industries. The study focuses on the population of all companies within the garment sector in Medan City. The choice of this population is justified by the substantial number of companies in the region and their noteworthy growth rates, rendering them representative for the investigation into the impact of collaborative networks on innovation, competitive advantage, and performance within the creative industries. The sampling strategy employed a purposive sampling approach, specifically selecting six districts/cities with a significant presence of creative industries in the garment sector. The total sample size for this study amounted to 114 respondents. Subsequently, each variable and its indicators will undergo validation and reliability testing. The measurement scale utilizes a Likert scale ranging from 1 to 5, where 1 indicates "Strongly Disagree" and 5 indicates "Strongly Agree." The data collected in this research will be analyzed using a multiple linear regression program.

2.1 Relationship between Innovation and Network Collaboration

Collaborative networks are established with the aim of formulating innovation strategies through collective efforts to generate shared value, often involving partnerships with universities, governmental bodies, and various corporate entities (Patrucco et al., 2022), collaborating with stakeholders enables companies to increase innovation, this occurs due to increased knowledge and capabilities of companies (Stachová et al., 2019). The intricacies of highly intricate business connections drive companies to intensify their collaborative approaches, aiming to foster innovations that can create value for all involved parties (Xie & Wang, 2020). Collaborative networks play a substantial role in shaping the trajectory of innovation development (Y. Li et al., 2021).

Collaborative networks involve the creation of a model for innovational progress, encompassing four variables that characterize the collaborative landscape. These variables comprise suppliers, clients, competitors, and research organizations. (Passaro et al., 2020). Collaborative networks are vertical networks consisting of partners, suppliers and competitors,

horizontal networks consisting of research institutions, academics and government (Reijonen et al., 2022). Quadruple helix components include university laboratories, government, research and development facilities, and society as a source of knowledge for innovation (Aggarwal & Sindakis, 2022).

Organizational innovation refers to collaborative efforts within a business that bring together individuals, ideas, and resources, fostering interactions that lead to the generation of creativity and innovation (Troisi et al., 2021). Local governments play a role in the effectiveness of local collaborative partnerships (Tan & Zhao, 2019), but relationships and cooperation with government agencies do not show a significant influence on innovation performance (Hong et al., 2019). There is a negative relationship between institutional governance that regulates technological innovation cooperation (Dekker et al., 2019).

H1: Collaborative Networks have the ability to increase innovation

2.2 Relationship of Collaborative Networks to Sustainable Excellence

Sustainable excellence is a dynamic process so it must be carried out continuously. The industry's ability to create the best sustainable advantage is highly dependent on industry resources and skills. One of the determinants of long-term success is determined by the advantages you have. A strong position of advantage will create higher customer perceived value compared to others. The capacity to achieve task distinctiveness, backed by market-oriented skills and company resources, is fostered by the ability to incur relatively low costs. Competitive advantage denotes a company's ability to outperform others within the same industrial setting (Annarelli et al., 2020). However, it is important to note that network collaboration does not contribute to the sustainable enhancement of excellence (Qiu et al., 2020). The better the intelligence and innovation capital, the better the competitive ability (Rehman et al., 2022). Building competitive advantages through specialization, collaboration, and the augmentation of capabilities can be achieved by establishing network relationships that integrate knowledge, skills, and resources (Klein & Todesco, 2021). Utilization of information technology will create a strong communication network between global logistics companies and customers that supports competitive advantage (Pal & Yasar, 2020). Micro, small, and medium enterprises utilize social networks as part of their marketing strategies. (F. Li et al., 2021).

H2: network collaboration has an impact on competitive advantage

2.3 The relationship between network collaboration and organizational performance

A strong network has an impact on improving organizational performance strategies (Ritala et al., 2021). Local governments contribute to facilitating the establishment of effective partnerships for small and medium businesses, but interactions and cooperation with government agencies do not demonstrate a notable impact on innovation performance, as indicated by Roxas et al. (2020). The capability of networks serves as a significant moderator in the connection between entrepreneurial orientation and business performance (Pulka et al., 2021). While the size of the collaborative network does not impact organizational performance, the synergistic effects of diverse connections within the organization exert a noteworthy influence on overall organizational performance (Zacharias et al., 2023). Full partnerships and extensive network collaboration will improve organizational performance, while collaboration within the organization bridges the relationship between the organization and organizational performance.

H3: Network collaboration has the ability to improve organizational performance

2.4. Collaborative network relationships with Customer Relationship Management

(Kraus et al., 2021). Web-based commerce demands creativity and innovation which increasingly pampers customers. E-commerce relationship management is an effort to provide convenience for online transactions anytime and anywhere without consumers having to leave the house. Therefore, a strategy for processing consumer data, product promotion, product sales and processing customer service data is needed to get as many customers as possible according to the targets set by a company (Campbell et al., 2020). The Customer Relationship Management (CRM) methodology, employing operational, analytical, and collaborative approaches, serves as the standard for developing a web-based E-CRM site to fulfill the requirement of establishing positive relationships with customers. The application system development employs the FAST (Framework for Application of Systems Technology) methodology, adopting a Driven Development Strategy model. System designs are crafted using Use Case Diagrams, Activity Diagrams, and Entity Relationship Diagrams (ERD). MySQL Server application, Web server is used to support database creation. According to Wiratama et al. (2020) said "E-commerce or electronic commerce is part of e-lifestyle which allows buying and selling transactions to be carried out online from any angle".

H4: The stronger the collaborative network, the better Customer Relationship Management will be.

2.5 Interaction between Innovation and Organizational Performance

To be able to compete in global competition, creative companies must only have excellence and product quality, but also technology, imagination, creativity and innovation (Chang et al., 2021). Employee knowledge, skills and experience determine success in innovation and value creation, creative individuals are unable to bring success in innovation (Nasifoglu Elidemir et al., 2020). For small companies, creativity and innovation are very necessary for entrepreneurs (Alsafadi et al., 2020). Reliable intellectual capital is capable of innovation which will ultimately produce excellence (Prieto-Sandoval et al., 2019). The combination of various resources becomes capital for a company to improve its performance and competitiveness (Prieto-Sandoval et al., 2019). The company's capability to create change has the ability to build organizational performance. (Alrowwad et al., 2020). Product innovation and process innovation can improve performance, while market innovation cannot improve performance (Hanaysha et al., 2022). Companies that are able to recognize knowledge and technology will be able to improve their performance (M. S. Khan et al., 2021).

H5: The higher the ability to innovate, the higher the organizational performance.

2.6 The Effect of Competitive Advantage on Organizational Performance

One of the performance indicators of medium-sized businesses that can be measured is the ability to export. In order to be able to export, companies must increase market orientation, establish partnerships and manage export management well (H. Khan & Khan, 2021). Competitive strategy challenges can encourage business performance achievements (Çop et al., 2021). Company management capabilities and resource management enable companies to achieve excellence. Competitive advantage may serve as a mediator in the connection between collaborative networks and organizational performance (Ferreira et al., 2020). Companies that are able to build competitive advantages will create superior organizational performance. (Udriyah et al., 2019). The competitive advantage has the capability to mitigate the impact of network collaboration on organizational performance (Wang et al., 2020).

H6: Competitive advantage influences organizational performance.

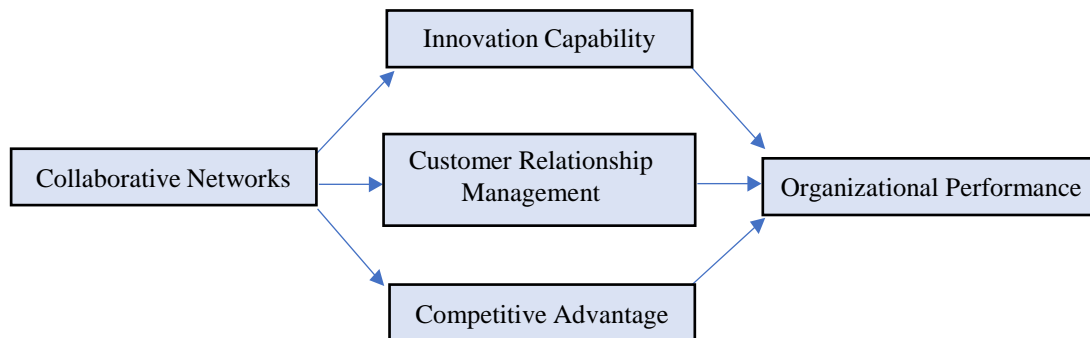


Fig. 1. Research Model

3. Results

The qualitative method is a method used to analyze the data collected. The results of this testing and analysis contribute to stakeholders in making policies and making strategies and can be used as a reference for future researchers, if the information provided has truth value and is accountable, the data that has been collected using SPSS software. This data analysis method aims to be able to provide interpretations and at the same time make precise and accurate conclusions.

3.1 Test the validity of the data

Quality research is research that obtains information from reliable sources. So that the information received is of good quality, good questions need to be prepared. So that the questions asked are able to answer what is being asked, a validity test is carried out (Knehta et al., 2019). The questionnaire used to obtain information must be tested for validity. The questions in the questionnaire should effectively uncover the actual occurrences. The validity level can be assessed by comparing the calculated r value (total item correlation) with the r table with the condition that degrees of freedom $(df) = n - 2$, where n is the number of samples with $\alpha = 5\%$. The validity test assessment criteria are as follows:

$r_{\text{count}} > r_{\text{table}}$, or significance value $< 0,05$ then the statement is valid

$r_{\text{count}} < r_{\text{table}}$, or significance value $> 0,05$ then the statement is not valid

Table 1. Data Validity Test Results

Indicator	r count	Significance level
<i>Suppliers</i>	0,783	0.02
<i>Competitor</i>	0,858	0.00

Indicator	r count	Significance level
<i>Buyers</i>	0,851	0.03
<i>Government</i>	0,551	0.01
Packaging innovation	0,741	0.00
Market innovation	0,800	0.04
Product innovation	0,778	0.00
Process innovation	0,657	0.00
<i>price/low cost,</i>	0,692	0.00
<i>Innovative product</i>	0,822	0.00
<i>Customer relationship</i>	0,712	0.00
<i>difference</i>	0,689	0.02
<i>Return on Assets (ROA)</i>	0,761	0.00
Profit growth	0,806	0.01
Sales growth	0,802	0.00
Market share growth	0,556	0.03

The results of the validity test in table 2 above show that all indicators are declared valid because they have a significance value below 0.05 or r count > r table (0.1824).

3.2 Reliability Test

Assessing the reliability of questionnaires, which serve as indicators for a variable or construct, is conducted through reliability testing, as discussed by Knekta et al. (2019). The reliability of the questionnaire is evident when respondents consistently provide stable and consistent answers to research statements. A higher level of reliability in a measuring instrument signifies greater stability of the instrument. Based on the results of data processing, it shows that all research variables are declared reliable, as proven by the Cronbach Alpha (α) value > 0.60.

Table 2. Data Reliability Test Results

Variable	Cronbach' alpha
Collaborative networks	0,759
Innovation capability	0,733
<i>Customers relationship Management</i>	0,716
<i>Competitive advantage</i>	0,707
Business Performance	0,794

3.3 Classic assumption test

- 1 Multicollinearity Test. The results of the data test show that there is no multicollinearity, it is proven that the Tolerance value > 0.10 or the Variance Inflation Factor (VIF) value < 10.
- 2 Normality test. The test results showed that the data were normally distributed, as evidenced by the Kolmogorov Smirnov test result of 0.231 > 0.05.
- 3 The heteroscedasticity test is conducted to investigate whether there is variability in the variance of residual observations within a given regression model. Heteroscedasticity occurs when there is inequality in the variance of residuals from one observation to another (Ghozali, 2016). In this study, the Glejser test was carried out, and the test results did not occur heteroscedasticity. It can be seen in

table 4, that all independent variables were not significant, with a 5% confidence level.

Table 3. Heteroscedasticity Test Results

Model	Unstandardized Coefficients		Standardized coefficient	t	sig
	B	Std Error	Beta		
1 (Constant) Collaborative Networks	.255	.024		3.029	.133
Innovation Capability (Y1)	.011	.039	.063	.466	.642
<i>Customers relationship Management (Y2)</i>	.087	.042	.438	2.466	.142
Competitive Advantage (Y3)	.099	.045	.508	2.542	.112
Business Performance	.074	.045	.332	1.655	.101

Multiple regression analysis was employed to assess the impact of diverse independent variables on the dependent variable, the results of which can be seen in table 4 below:

Table 4. Regression Analysis Results

Independent variable	Regression 1	Regression 2	Regression 3	Regression 4
Coefficient <i>Collaborative Network</i>	0,716*			0,074**
Coefficient <i>Innovation Capability</i>		0,719*		0,497*
Coefficient <i>Customers Relationship Management</i>			0,497*	0,497*
Coefficient <i>Competitive Advantage</i>				0,426*
<i>Adjusted R Square</i>	0,509	0,512	0,607	0,902

*) significant 0,05 and **) significant 0,10.

Regression 1: dependent variable (innovation capability) Regression 2: Customer relationship Management, Regression 3 dependent variable (competitive advantage) Regression 4: dependent variable (performance).

4. Discussion

Based on the results of data analysis in the first regression, the regression coefficient for the collaborative network independent variable was 0.716 and the significance level was below 0.05. This explains that the better the collaborative network, the greater the innovation capability, both process, product, packaging, market, packaging, product, process innovation) so that H1 is accepted.

To expedite the supply of raw materials so that the production process can be streamlined, the ability to build networks with raw material providers is needed. Success in building collaborations with other similar companies will increase efficiency and strengthen competitiveness between partners. The ability to build good relationships with buyers will increase their trust, thereby creating loyalty that can build long-term cooperation. Likewise, guidance and assistance from the government, both material and non-material, can increase the spirit of sustainable innovation. Adjusted R Square shows a value of 0.509 or 50.9%, meaning that innovation capability can be explained by the collaborative network by 50.9%, the rest is explained by other variables outside the research.

Based on the results of data analysis in the second regression, a regression coefficient of 0.479 was obtained and the significance level was below 0.05. This explains that the better the collaborative network, the more competitive advantage will increase, so H2 is accepted. The results of this research are not in accordance with research by Najib et al., 2014. This condition shows that the better the relationship with suppliers, similar industries (society), buyers and the government will increase competitive advantage. Building a good collaborative network with various parties will create efficiency, so that consumers can determine more affordable prices. Building partnerships with the community will increase knowledge that stimulates the creation of innovative products. Likewise, building good relationships will be able to build good relationships with buyers, and build trust which can create loyalty.

The regression coefficient of 0.719 with a significance level below 0.05 was obtained based on the results of the analysis in the third regression. This explains that better Customer Relationship Management will increase competitive advantage, so H3 is accepted. This shows that the better the relationship with stakeholders, the more competitive advantage and organizational performance will increase. Building a good network collaboratively with various parties will create efficiency, so that consumers can determine more affordable prices. Building collaboration with the community will increase knowledge which stimulates the creation of innovative products. Likewise, building good relationships will be able to build good relationships with buyers, and build trust which can create loyalty.

In the fourth regression, the results of data analysis show that the regression coefficient value of the independent collaborative network variable is 0.074 with a significance level above 0.05, so H4 is rejected. This explains that collaborative networks are not able to improve organizational performance. The outcomes of this study align with the conclusions that indicate collaborative networks do not impact organizational performance, while network capability serves as a significant moderator in the connection between entrepreneurial orientation and organizational performance (Mulyana & Wasitowati, 2021). The Adjusted R Square value is 0.512 or 51.2%, meaning that competitive advantage can be explained by a collaborative network of 51.2%, the rest is explained by other variables outside the research. The regression coefficient for the independent variable innovation ability is 0.497, and its significance level is below 0.05, leading to the acceptance of hypothesis H5. This explains that the better the innovation capability, the greater the organizational performance. Product and process innovation that meets consumer expectations will encourage increased sales, as well as improvements to more attractive packaging that will create a better product image in front of consumers. Market expansion through new market segments will encourage an increase in

sales. Various product, market, process and packaging innovations will be able to improve organizational performance which is reflected in sales growth, profits, market share and ROA.

According to the data analysis results, the regression coefficient for the variable competitive advantage is 0.426, and its significance level is below 0.05. As a result, hypothesis H6 is accepted. This explains that competitive advantage can improve organizational performance. To encourage increased organizational performance, this can be done by producing new products for consumers that are different from competitors' products. Production efficiency can encourage setting prices lower than competitors, thereby encouraging increased sales. Likewise, the ability to build good relationships with consumers will increase consumer trust which will ultimately form consumer loyalty. Success in creating competitive advantages can improve organizational performance

5. Conclusion

Enhancing the performance of participants in the creative industry involves the establishment of effective collaborative networks and the cultivation of innovation capabilities, encompassing products, processes, packaging, and market strategies, customized to meet consumer demands. Elevating the creative industry's performance is attainable by fostering collaborative networks that facilitate the attainment of a competitive advantage. Achieving optimal performance hinges on the creative industry's ability to innovate and introduce novel and distinctive offerings compared to competitors. The managerial implication derived from this research underscores the importance of cultivating robust collaborative networks to stimulate innovation growth and establish a competitive edge. Developing innovation and creating competitive advantage is carried out by building the right collaboration network. The theoretical implication of this research is to improve the performance of creative industries by building collaborative networks, innovating and creating competitive advantages simultaneously. It is hoped that the results of this research can help in developing knowledge in the field of management. The limitation of this research is that it uses a small sample (only 114 respondents) from various creative industries in several districts/cities in North Sumatra, so the results are not optimal, and it is hoped that future research can use a larger sample.

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