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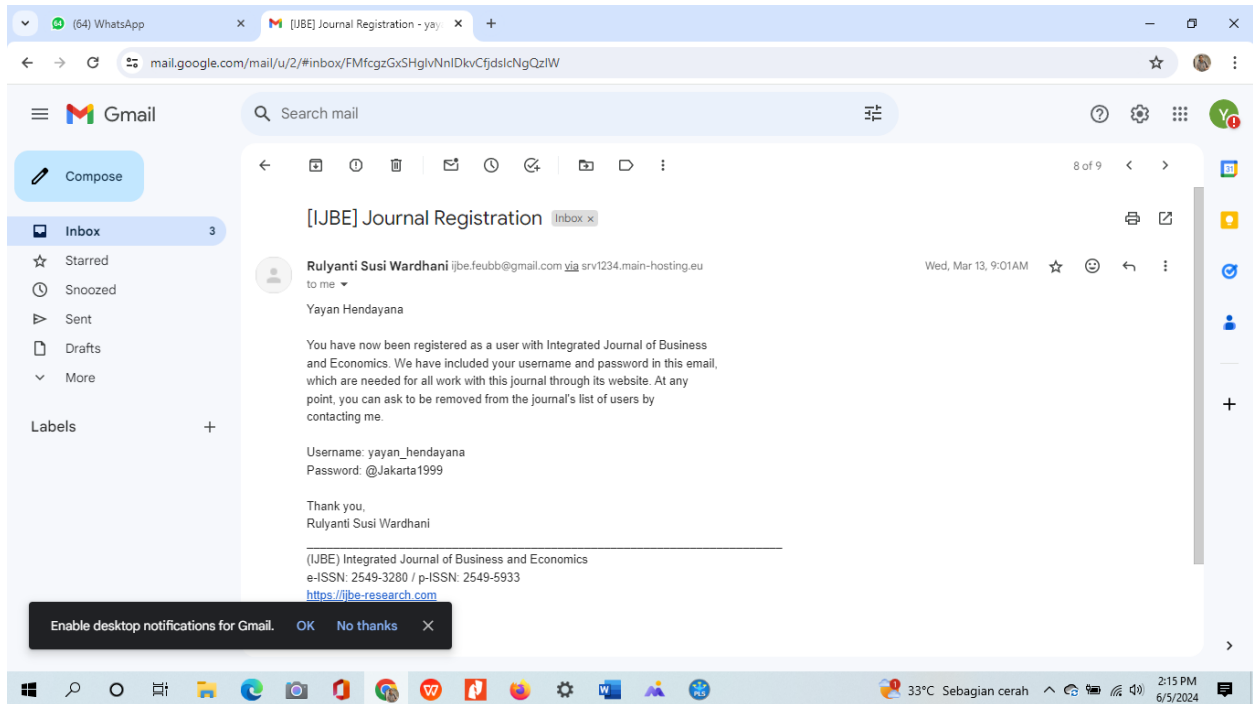
### Business Networking, Innovation, and Firm Competitiveness: The Case of Handicraft Industry in Indonesia

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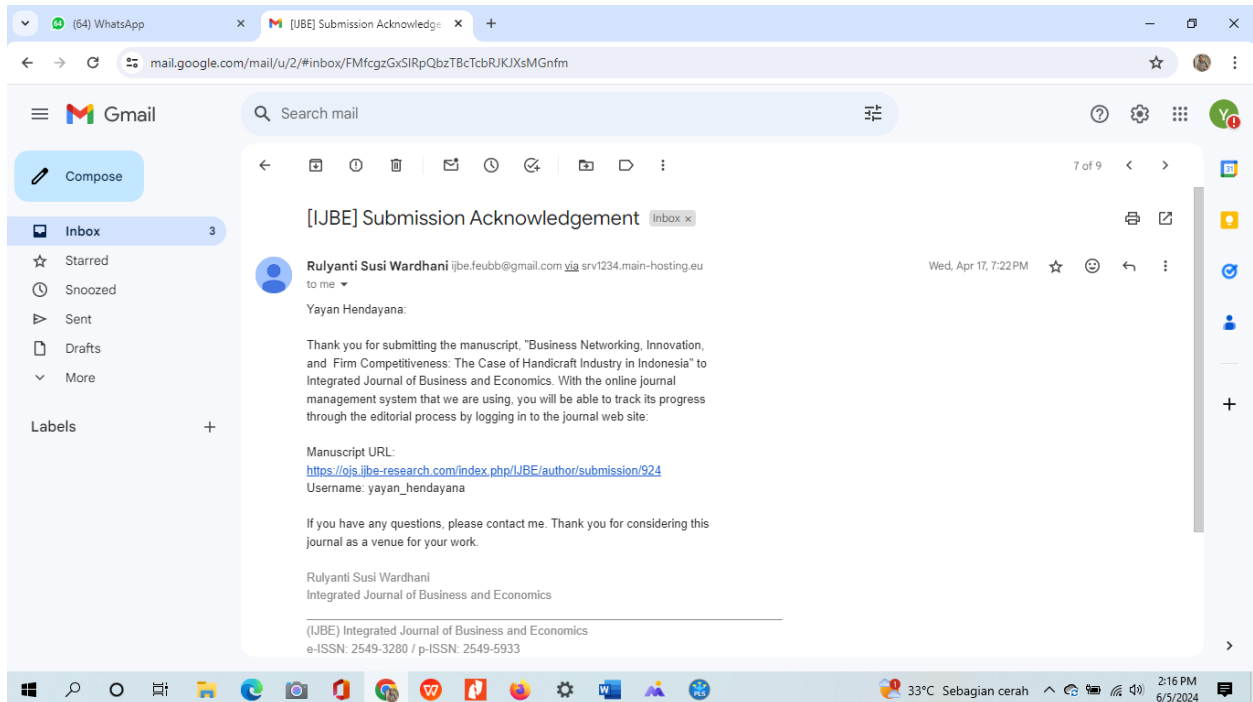
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## Business Networking, Innovation, and Firm Competitiveness: The Case of Handicraft Industry in Indonesia

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### Abstract

*This study aims to examine the influence of business networking and innovation on firm competitiveness in the case of the handicraft industry in Indonesia. The sample in this study was the owner of the Handicraft Industry in Indonesia. The questionnaires were distributed to as many as 375 and a total number of 253 were filled and used as a sample in this study. The hypotheses were analyzed by using the structural/equation modeling (SEM) approach and processed by AMOS software version 23. The result showed that business networking and innovation positively influence the competitiveness of the handicraft industry in Indonesia. This paper gives additional insights into the relationship between business networking, and innovation on firm competitiveness in handicraft industry context in Indonesia, and the innovation can mediate the influence of business networking on firm competitiveness. Business networking capabilities must receive important attention from SMEs, especially in the creative industry in the craft sector. SMEs must establish good communication with customers, suppliers, and competitors. There is only one independent variable in this research, namely business network, so it is less comprehensive. To be more comprehensive, other independent variables can be added such as technological ability, marketing knowledge, and entrepreneurial ability.*

**Keywords:** *Business Networking; Innovation; Firm Competitiveness; Handicraft Industry*

### 1. Introduction

The handicraft industry is a part of the creative industries in Indonesia. The number of small and medium enterprises in the handicraft sector reach 700.000 units with the employment of nearly 1.3 million people in Indonesia. still, the request share of handicraft assiduity is fairly low at 1.26, indeed though the eventuality is relatively large( <http://ksp.go.id>). According to the World Economic Forum (WEF) in 2020, Indonesia's profitable competitiveness is still low compared to other ASEAN. countries similar as; Singapore, Malaysia, and Thailand (<http://www3.weforum.org>). The low competitiveness influences the sustainability of an establishment (Metekohy, 2013).

The addition of firm competitiveness can be done by making internal advancements, similar to invention and perfecting business networking. The results of the exploration set up that there was a donation of business networks and inventions to the competitiveness of SMEs (Gronum et al., 2012). According to Osterle et al (2001) only innovative enterprises that have business network capabilities can contribute to firm competitiveness. Kuratko & Howard Frederick (2016) state that enterprises grounded on invention affect the establishment competitiveness. The results of exploration conducted in Australia also set that invention was an important factor in supporting the businesses' competitiveness and success, Zaheer (2015). The finding in

another study also banded that ingeniousness is veritably important and will give benefits to the business proprietor in the sustainability of their businesses, so that business objects will be achieved efficiently and effectively, Zuliarni (2014).

The results of this study are also supported by the results of research conducted by (Visnjic et al., 2014) found that both service innovation and product innovation can improve business performance. The competitiveness of companies can be promoted by creating the necessary conditions to foster product innovation, strengthen cooperation with retailers, and build close cooperation networks (Tamayo et al., 2015). Network competence has a significant influence on the various types of firms' performances. According to entrepreneurs, more emphasis needs to be placed on strengthening networking skills to achieve better non-financial performance and business growth (Tehseen, 2018).

There are inconsistent findings about the impact of corporate networks on innovation and competitiveness.

Chen & Wang, (2008), Tamayo et al. (2015), Zeng, et al. (2010), and Gronum et al. (2012) analyze the influence of business networks on innovation. These results show that the company's network has a positive impact on innovation capabilities. In contrast to Love & Roper (2001) and Frishammar & Hörte (2005), the results show that relationships between companies do not affect innovation but are important for business success. Business networks are only complementary in the innovation process. Innovation is an important factor for a company to improve its competitiveness. The study of Nadia et al. (2016) shows that innovation has a strong positive impact on competitiveness. Supported by research by Sipa et al. (2015), innovation is the main driver of competitiveness. In contrast to research conducted by Cho et al. (2008) who surveyed Korean companies that produce printing, machinery, automobiles, and electronic equipment, found that innovation does not have a significant impact on company competitiveness.

Based on differences in research results, where there are no consistent results regarding the influence between business networks and business competitiveness, this study responds by testing innovation as a mediating variable as a new thing in this study. Innovation becomes an intervening variable that mediates the effect of business networking on competitiveness. This opinion is based on the model/proposed by Gronum et al. (2012). However, we will examine different perspectives, namely the competitiveness of the handicraft industry in Indonesia. Therefore, the purpose of this study is to find :

First, the influence of business networking on innovation. Second, the influence of innovation on firm competitiveness. Third, the influence of business networking on firm competitiveness. Fourth, business networking influences firm competitiveness are mediated by Innovation.

The implications of this study theoretically develop some literature related to business network relationships, innovation, and business competitiveness in SMEs. In addition, this research can be a reference for other researchers to develop research on the competitiveness of small and medium enterprises and later develop innovations that affect the improvement of business competitiveness. Practically, this research can be utilized by all related parties to build business networks, increase innovation capabilities, and increase company competitiveness in a sustainable manner.

## **2. Literature Review and Hypotheses Development**

### ***Firm Competitiveness***

A company's competitiveness refers to a company's ability to compete with other companies. Competitiveness can also be described as the position of productivity, where productivity is interpreted as the material produced by the pool (Porter, 1990). Another opinion states that a company's competitiveness is defined as the ability of a company to compete successfully in its environment (Tamayo et al., 2015). Competitiveness is defined as a nation's capability to command significant world request share in high technology products while maintaining the living norms of its citizens (Álvarez et al., 2009). The most competitive associations are in a better position to reach wider requests. also, the establishment's performance indicates that the establishment has a high position of competitiveness, and the more profitable enterprises tend to be more competitive (Tamayo et al., 2015). Competitive companies can achieve high profitability and achieve sustainable ventures. Conversely, due to weak competitiveness, companies can experience a decline in profits and eventually go bankrupt (Audretsch & Walshok, 2013).

The competitiveness of a company can be improved through internal improvements centered on human resources by increasing the ability to build networks and innovation. According to Osterle et al (2001) Only companies with innovative capabilities and business networks can contribute to the competitiveness of the company.

### ***Innovation***

Innovation is defined as the successful implementation of the creative ideas of an enterprise. Companies are expected to develop new ways of thinking when facing competitors, customers, and existing markets (Basuki et al., 2020). Afsar et al., (2014) stated that to encourage innovation, companies need to motivate their employees to adopt innovative work behaviors. According to Udin et al., (2022a), Innovative work behavior refers to all employee actions aimed at introducing, generating, and implementing ideas in an organization. However, innovative work behavior is very complex because it is not easy to generate creative ideas Udin et al., (2022b). According to Schwab (2010), invention is one of the factors that impact a company's competitiveness. Also, (OECD, 2001) said that invention is a factor that can increase competitiveness. In the paper, Kuratko & Howard Frederick (2016) also said that invention can be a driving factor for establishing competitiveness. Terziovski (2007) innovation. is the operation of coffers to produce value for guests and companies by developing, the enhancing new products, processes, and services of an establishment. Chursin & Vlasov's (2017) invention is about performing product innovation by using innovative ideas and sources to produce new products (or produce old products with new manufacturing styles) and to generate new cash primarily. This is the establishment of business operations as a function.

Search for product registration, requirements, distribution, etc., i.e. regulation of the most important elements of a product or invention sample. The position of business success is determined by the position of invention perpetration in the establishment (Siregar et al., 2019). The capability to introduce is an important factor that must be possessed by entrepreneurs in managing business. Innovation capability shows that every business exertion carried out has novelty and uniqueness (Hendayana et al., 2019).

### ***Business Networking***

The capability of an establishment in networking is one of the most important effects in business. Xu, Lin, & Lin, (2008) cited that a business network is a long- term relationship

among two or further associations, and the mechanisms through which similar connections take shape are neither request nor organizational scale. Networking has long been associated with sharing coffers among mates, access to requests, and new technologies that the establishment couldn't be suitable to pierce in insulation. The establishment tries to get the benefits of networking by calculating several factors similar to trust and confidence among network mates to be suitable to partake in strategic coffers (Bengesi & Roux, 2015). The capability to make a network is necessary for an entrepreneur, both newcomers and those who have long been involved in the business. The business will not be able to grow and develop without expansive networks. The capability to make a network will increase the number of guests so that deal growth will also increase. In the paper, Witt (2007) stated that the benefits that entrepreneurs admit from their mate networks are adding business success similar to adding profitability and also adding firm growth and value.

### **Hypotheses Development**

#### ***Business Networking and Innovation***

According Gronum et al. (2012) identified networks as an important element in numerous studies on the invention process. Oyedokun Akintunde (2016) is an investigation of networks and innovative capabilities of entrepreneurs in the Nigerian plastics industry. The purpose of this study is to examine the extent to which networking stimulates creativity within this industriousness. To capture the relationship between the performance of connected networks and the size of innovative entrepreneurs, his two-dimensional construct containing six variables is assumed to be examined. The results confirmed that networking of employees and companies is suitable for promoting plastic-supported inventions. The company promotes and values the idea of sustained success, so individuals are not hysterical in coming up with ideas or demonstrating similar ideas. Directors are therefore encouraged to identify and promote networking skills that can stimulate entrepreneurial invention and fair competition among frontline employees. Research by (Gronum et al., 2012) also shows that business networks contribute to inventions and achievements in small and medium-sized enterprises. Xu et al. (2008) also found that business networks were understood as factors positively associated with invention. Chen & Wang (2008) analyze the impact of social networks and new business inventions. The concept of social networking is studied as an internal and external social network configuration for members of the entrepreneurial team. The results show that internal and external social networking has a small positive impact on the innovative capabilities of a new business. Xu, Lin, & Lin (2008) Business networks, companies can facilitate innovation by increasing networks, more and more business networks are associated with better innovative capabilities. From an information processing standpoint, network enhancement can bring companies superior access to important ideas and opportunities, resulting in stronger innovative capabilities.

*H1: Business networking influence innovation*

#### ***Business Networking and Firm Competitiveness***

A successfully built business network can overcome the limitations faced by the company, especially getting ease in getting access to various resources at low cost, and establishing cooperation with other companies. Building a strong business network can have a positive impact on the company, especially establishing beneficial mutual relationships, which can attract more opportunities for the company, so that it will increase competitiveness.

Abou-Moghli & Muala (2012) investigate the impact of entrepreneurial networks on business success. The results of the study show that the statistics of entrepreneurial networks (social

networks, business networks, and inter-organizational strategic networks) have a significant impact on continued enterprise success. This article (Al-mommani, Al-afifi & Mahfuz, 2015) also highlights the importance of social media and social networks in maximizing the competitive value of SMEs. They suggest that micro, small, and/or medium-sized businesses would benefit from implementing effective social media marketing strategies. Witt (2007) also states that partner networks increase profitability, business growth, and value. Álvarez et al., (2009) study shows the importance of collaboration (networking) for the competitiveness of manufacturing companies. The power of networks to encourage competition in economic activity is currently one of the aspects analyzed in this study. Meanwhile, research conducted by Al-mommani et al., (2015) found that business networks have disadvantages such as time-consuming and lack of feedback control that can affect the performance of SMEs and reduce their market share. Therefore, small businesses need to rethink customer relationship management by creating conceptual and operational frameworks that provide structure with a certain degree of flexibility.

*H2: Business networking influence firm competitiveness*

### ***Innovation and Firm Competitiveness***

Soto-Acosta et al. (2016) conducted a study on organizational innovation in which e-business plays a mediating role in the performance of SMEs in the Spanish manufacturing industry. The results of this study were also reported by Visnjic et al., (2014) They show that both service innovation and product innovation can improve firm performance. Innovation is often associated with an organization's competitive advantage (Kussudyarsana et al., 2023)

Schwab (2010) states that a company's competitiveness is influenced by innovation. Innovation is very important because it allows knowledge to be gained and technological developments to be integrated and adapted. Innovation is a factor that increases competitiveness (OECD, 2001). Product innovation and process innovation influence corporate performance (Suliyanto et al., 2019). Innovation plays an important role in improving companies' competitiveness and performance (Siregar et al., 2022; Pranowo et al., 2020; Siregar et al., 2021; Nasution et al., 2021; Siregar et al., 2020; Siregar et al., 2021).

Nadia et al. (2016) discussed innovation and competitive advantage in Malaysia. They found that innovation can affect the competitiveness of SMEs in Malaysia's food industry. Research results show that innovation has a strong positive impact on competitive advantage. The findings also note that SMEs need to invest in innovation to gain a competitive advantage. This study also found the moderating effect of firm age and innovation on competitive advantage.

*H3: Innovation influence firm competitiveness*

### ***Mediating Role of Innovation***

Small and medium enterprises (SMEs) usually have limited resources, especially when compared to large companies, they tend not to innovate. However, small businesses are most likely to innovate because of their proximity to employees, suppliers, and customers. Many experts emphasize the importance of innovation for small and medium-sized businesses to survive, grow, and succeed in the market in the long run (Ng & Hamilton, 2015). The importance of innovation to the success, growth, and competitive advantage of SMEs in both developed and developing countries has been widely recognized in many studies (Yasin et al., 2014). According to Kuratko & Howard Frederick (2016), innovation along with economic driving force and economic efficiency are factors that increase the competitiveness of

companies. A study by Nadia et al. (2016) reinforces this opinion with their findings that innovation has a strong positive impact on the competitiveness of SMEs in the Malaysian food industry. Chursin & Vlasov (2017) state that innovation becomes the foundation for companies to increase their competitiveness.

The greater the ability of a company to innovate, the more competitive the company will be. Innovation is a key element of a company's success. The greater the ability of a company to innovate, the more competitive the company will be. This shows that innovation guarantees increased competitiveness for companies and organizations. An important factor in the occurrence of company innovation is whether or not a company is able to build a business network. Liebowitz (2012) stated that business networks play a very important role in business innovation. Similarly, research (Hilmi et al., 2010) provides empirical evidence that innovation has a direct positive impact on Malaysian SMEs. In addition, several other studies have provided empirical evidence regarding the mediating role of innovation in different contexts (Salisu & Bakar, 2022); (Rodríguez & Nieto, 2010).

Increasing innovation capacity, among others, requires a wider corporate network. The better you manage your business network, the greater your ability to innovate. If business networks and innovation are left inadequate, it will be difficult to share creative and innovative ideas. The market in general demands high-quality and competitive products both in terms of product and price, so if innovation is left unchecked, it will be difficult to penetrate a wider market. Therefore, the company's ability to build business networks can increase its innovation capacity. Innovation as a mediating variable focuses on synergy as a tool to increase competitiveness. Innovation cannot be done without the role of the ability to establish communication with business networks. If the company wants to increase its ability to compete, then pay attention to factors that can make companies innovate, one of which is the ability to build business networks.

*H4: Business networking influence firm competitiveness are mediated by Innovation*

### **3. Research Methods**

#### **Participants**

This study uses a quantitative approach by conducting survey research. Samples were taken from the population using a questionnaire as a data collection tool. A survey was conducted on 253 handicraft sector SMEs scattered in West Java. To obtain samples using purposive sampling with the following criteria: (a) SMEs based on Law no. 20 of 2008 about Micro, Small, and Medium Enterprises (MSMEs), namely having a turnover above Rp. 300,000,000, - and a workforce of more than 5 people. (b) SME sectors that have been operating for more than three years. Of the 253 participants, the characteristics of respondents showed that most respondents were men (74 percent), while women were only 26 percent. The characteristics of respondents based on age are dominated by respondents aged between 50 years and under or dominated by respondents who are in productive age. The characteristics of respondents based on education level are dominated by respondents with lower secondary education from the entire research sample, which is as much as 88 percent, while those with higher education are only 12 percent. Based on the length of running a business, dominated by SMEs that have been running a business for 3 to 15 years, which is as much as 78 percent. While the remaining 22 percent run a business for less than 3 years. The data were analyzed using structural equation modeling with Amos Software Version 23.



### Measures

This study uses a survey by asking questions about innovation, business networking, and competitiveness. The total instrument in our study consists of 10 items that we measured on a Likert scale of 1 to 5; 1-very low, 2-low, 3-moderate, 4-high, 5-very high. In this study, we measured innovation by using 3 items of questions, business networking using 3 items of questions, competitiveness using 4 questions adopted from (Man, Lau, & Chan, 2002), (Chong, 2008), (Catherine L. Wang, 2004), (Zeng, S.X. & Tam, 2010), (Peris-Ortiz, 2017).

**Table 1.** Construct and Measurements

Variable	Indicator	n item
Business Networking	1. Communication with customers	3
	2. Commitment and mutual trust with suppliers	
	3. Communication with competitors	
Innovation	1. Simplification of the production process.	3
	2. Development of product variations	
	3. New ways of marketing products	
Competitiveness	1. High of productivity	4
	2. The growth of sales	
	3. Market share	
	4. Response to opportunities and threats	

## 4. Results and Discussion

### Measurement Model

Based on table 1, informs that all indicators (manifest variable) have a factor loading ( $\lambda$ )  $\geq 0.5$ . It means that all indicators on each construct (latent variable) are valid and significant. We also can see the Composite Reliability (CR) of a business networking value of  $0.781 > 0.7$  and the Average Variance Extracted (AVE) value is  $0.545 > 0.5$ . The Composite Reliability (CR) of innovation value of  $0.810 > 0.7$  and the Average Variance Extracted (AVE) value is  $0.594 > 0.5$ . The Composite Reliability (CR) of competitiveness value of  $0.881 > 0.7$  and the Average Variance Extracted (AVE) value is  $0.650 > 0.5$ . It means that all indicators in this model are valid and reliable.

**Table 2.** The Measurement Model

Latent Variable	Manifest Variable	Factor Loading ( $\lambda$ )	CR	VE	Decision
Business Networking	Communication with the customer (X1)	0.781	0.780	0.545	Valid and Reliable
	Commitment and mutual trust with the supplier (X2)	0.713			
	Communication with competitors (X3)	0.718			
Innovation	Simplification of the production process. (X4)	0.789	0.810	0.594	Valid and Reliable
	Development of product variations (X5)	0.820			
	New ways of marketing products (X6)	0.698			
Competitiveness	High of productivity (Y1)	0.819	0.881	0.650	Valid and Reliable
	Growth of sales (Y2)	0.848			
	Market Share (Y3)	0.834			

Response to opportunities and threats (Y4) 0.716

Source : Research Data

### Goodness of Fit Test

The criteria to int testing of goodness of fit the mode are AGFI value > 0.90, GFI value > 0.90, CFI value > 0.90, TLI value > 0.90, RMSEA < 0.08, and RMR value < 0.05 (Hair et al, (2017)).

Table 3. The goodness of Fit Test

Goodness of Fit Index	Cut Of Value	Result	Decision
CMIN/DF	< 2.0	0.841	Good Fit
GFI	> 0.90	0.980	Good Fit
AGFI	≥ 0.90	0.965	Good Fit
CFI	> 0.95	1.000	Good Fit
TLI	> 0.95	1.006	Good Fit
RMR	≤ 0.05	0.018	Good Fit
RMSEA	< 0.08	0.023	Good Fit

Source : Research Data

Based on table 3, shows that all goodness of fit index are in good fit criteria. The value of CMIN/DF is  $0.481 < 2$ , GFI value of  $0.980 > 0.90$ , AGFI value of  $0.965 > 0.90$ , CFI value of  $1.000 > 0.90$ , TLI value of  $1.006 > 0.95$ , RMR value  $0.018 < 0.05$ m RMSEA value of  $0.023 < 0.08$ .

### Hypothesis Testing

Hypothesis testing is done by analyzing regression weight significance values to determine the effect of business networking on the competitiveness of SMEs in the handicraft sector in West Java. According to Byrne (2010), the basic decision-making test of significance for regression weight is the value of the critical ratio (C.R.) > 1.96 and probability value < 0.05.

Tabel 4. Regression Weights

		Estimate	C.R.	P	Decision
Innovation	<--- Business_Networking	.628	6.987	.000	Supported
Firm_Competitiveness	<--- Business_Networking	.282	3.480	.000	Supported
Firm_Competitiveness	<--- Innovation	.599	6.661	.000	upported

Source : Research Data

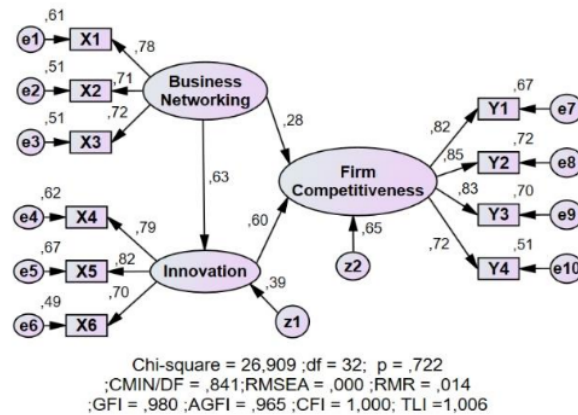
Table 5. Indirect Effects

	Business_Networking	Innovation	Firm_Competitiveness
Innovation	.000	.000	.000
Firm_Competitiveness	.373	.000	.000

Source : Research Data

Based on the results of the study, all hypotheses are supported. Business networking, innovation positively and significantly influence firm competitiveness directly and indirectly. The relationship between business networking and innovation has the CR value (t-value) of  $6.987 > 1.96$  and probability value is  $0.000 < 0.05$ . It means that business networking influence innovation positively. The influence of business networks on competitiveness has CR value (t-value) of  $3.480$  and p-value  $0.000 < 0.05$ . It means that the hypothesis is accepted. The influence of innovation on competitiveness has CR value (t-value) of  $6.661$  and p-value  $0.000 < 0.05$ . It means that the hypothesis is accepted. In other term, innovation can improve the handicraft competitiveness in Indonesia.

Tabel 5 shows the results of testing innovation as an intervening variable between the influence of business networks on company competitiveness obtain indirect value that is greater than its direct value. Testing the relationship between the two variables showed an indirect value of 0.373 and a direct value of 0.282. Therefore, the fourth hypothesis that states there is an influence of business networks on company competitiveness and innovation as an intervening variable is accepted.



Source : Research Data

Figure 2. Structural Model

## DISCUSSION

This study investigates the impact of business networks and innovation on business competitiveness using the Indonesian handicraft industry as an example. The results show that all the hypotheses of this study support the model we proposed based on the literature and previous studies. The results of the first hypothesis prove that business networks influence innovation. This means that strong business networks encourage entrepreneurs to innovate and keep their businesses growing. The results of this study are consistent with the findings of Chen & Wang (2008) who analyzed social networks and their impact on new business innovations. They found that internal and external social networks had a small positive impact on new firms' ability to innovate. Xu, Lin, and Lin (2008) also found that firms can promote innovation by expanding their networks, as more corporate networks are associated with better innovation capabilities.

The results of the second hypothesis also provide evidence that there is an impact on the competitiveness of Indonesia's handicraft industry among business networks. In other words, you need a good corporate network to improve your competitiveness. This finding is consistent with that of Colleen (2014). This study provides a more detailed explanation of the role of social networks and their impact on business outcomes. Jack, et al. (2010) argued that entrepreneurial networks are important and useful for many companies.

The third hypothesis also provides evidence that innovation can improve the competitiveness of Indonesia's handicraft industry. Following the theory of Chursin & Vlasov (2017), they state that innovation is the basis for achieving competitiveness. The results of this study are consistent with those of Kuratko and Howard Frederick (2016), who state that factors based on

economic drivers, economic efficiency, and innovation are the drivers of competitiveness. Chursin & Vlasov (2017) state that innovation is the basis of competitiveness. The greater a company's ability to innovate, the more competitive it will be. This means that innovation guarantees increased competitiveness for companies and organizations.

The results of testing the fourth hypothesis of business networking have a significant positional influence on competitiveness through innovation. This means that the innovation variable can be categorized as a mediator between business networking against competitiveness. Companies should focus on building their business networking to drive innovation capabilities. These results confirm that a strategic step to encourage the improvement of innovation capabilities requires strengthening the ability to build business networking that leads to competitive advantage. This result is reinforced by the findings of Lechner & Dowling (2003), that innovation mediates the influence of business networking on business competitiveness. In line with Lin & Lin (2016) forming a network can share knowledge, accelerate innovation, reduce transaction costs, better reputation, and the creation of new market opportunities, thereby strengthening the Company's competitiveness.

## **5. Conclusion and Suggestion**

This study empirically investigated the relationship between business networks and innovation and competitiveness in the Indonesian handicraft industry. The results show that business networks and innovation have a significant impact on competitiveness. Innovation has the greatest impact on a company's competitiveness. Rather than the direct effect of business networks on business competitiveness, the indirect effect of business networks through innovation has the greatest impact on business competitiveness. Therefore, innovation can mediate the influence of business networks on a firm's competitiveness. We recommend improving innovation through product variations, improving production processes, improving a company's network capabilities, etc. Expanding our business network of customers, suppliers, and competitors.

This study enriches the existing scientific literature and further examines and investigates the relationship between these variables. Practically, the results of this study can provide input to owners or managers to pay attention to business networks that affect business innovation and competitiveness. Furthermore, the study suggests that SMEs strive to strengthen mutually beneficial partnerships between SMEs or between SMEs and large entrepreneurs to prevent the negative impact of poor business networks and competitiveness, get partners online and build relationships with other entrepreneurs, and Provide opportunities for customers to provide input and receive feedback on new product formulations and designs. With suppliers who maintain commitment and mutual trust. Benchmark your competitors in the development and manufacture of innovative products. Small and medium-sized enterprises can form business groups that facilitate partnerships with other parties, allowing small and medium-sized businesses to control distribution and build larger, more profitable business models. SMEs need to maintain customer loyalty and satisfaction, including creating communities where customers can encourage repeat purchases and participate in promoting their products. Create a network pattern in the form of subcontracting networks and cluster development. In this way, small and medium-sized businesses gain the necessary competitive advantage.

This study provides new insights into the importance of SMEs building business networks to increase their competitiveness through innovation capabilities. Small and medium enterprises that can expand their business networks through communication networks with customers,

suppliers, and competitors, will get creative ideas to innovate in the production process, develop product variations, and apply new methods in product marketing. This will be very useful to increase business competitiveness.

The limitation of this study is that, first, this study only uses a sample of SMEs in the craft sector, limiting its generalization ability to SMEs as a whole. Second, the study relied on data collected by distributing questionnaires to respondents. Respondents' answers may not reflect actual circumstances. We encourage future researchers to consider using other methods to collect data. Third, this study only focuses on business networking variables that influence innovation and its impact on competitiveness and does not discuss other variables that may play a greater role in improving competitiveness. Therefore, researchers suggest that further research is needed.

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## **Business Networking, Innovation, and Firm Competitiveness: The Case of Handicraft Industry in Indonesia**

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### **Abstract**

*This study aims to examine the influence of business networking and innovation on firm competitiveness in the case of the handicraft industry in Indonesia. The sample in this study was the owner of the Handicraft Industry in Indonesia. The questionnaires were distributed to as many as 375 and a total number of 253 were filled and used as a sample in this study. The hypotheses were analyzed by using the structural/equation modeling (SEM) approach and processed by AMOS software version 23. The result showed that business networking and innovation positively influence the competitiveness of the handicraft industry in Indonesia. This paper gives additional insights into the relationship between business networking, and innovation on firm competitiveness in handicraft industry context in Indonesia, and the innovation can mediate the influence of business networking on firm competitiveness. Business networking capabilities must receive important attention from SMEs, especially in the creative industry in the craft sector. SMEs must establish good communication with customers, suppliers, and competitors. There is only one independent variable in this research, namely business network, so it is less comprehensive. To be more comprehensive, other independent variables can be added such as technological ability, marketing knowledge, and entrepreneurial ability.*

**Abstrak terlalu panjang.. agak diringkas**

**Keywords:** *Business Networking; Innovation; Firm Competitiveness; Handicraft Industry*

### **Introduction**

The handicraft industry is a part of the creative industries in Indonesia. The number of small and medium enterprises in the handicraft sector reach 700.000 units with the employment of nearly 1.3 million people in Indonesia. still, the request share of handicraft assiduity is fairly low at 1.26, indeed though the eventuality is relatively large( <http://ksp.go.id>). According to the World Economic Forum (WEF) in 2020, Indonesia's profitable competitiveness is still low compared to other ASEAN. countries similar as; Singapore, Malaysia, and Thailand (<http://www3.weforum.org>). The low competitiveness influences the sustainability of an establishment (Metekohy, 2013).

The addition of firm competitiveness can be done by making internal advancements, similar to invention and perfecting business networking. The results of the exploration set up that there was a donation of business networks and inventions to the competitiveness of SMEs (Gronum et al., 2012). According to Osterle et al (2001) only innovative enterprises that have business network capabilities can contribute to firm competitiveness. Kuratko & Howard Frederick (2016) state that enterprises grounded on invention affect the establishment competitiveness. The results of exploration conducted in Australia also set that invention was an important factor in supporting the businesses' competitiveness and success, Zaheer (2015). The finding in another study also banded that ingeniousness is veritably important and will give benefits to the business proprietor in the sustainability of their businesses, so that business objects will be achieved efficiently and effectively, Zuliarni (2014).

The results of this study are also supported by the results of research conducted by (Visnjic et al., 2014) found that both service innovation and product innovation can improve business performance. The competitiveness of companies can be promoted by creating the necessary conditions to foster product innovation, strengthen cooperation with retailers, and build close cooperation networks (Tamayo et al., 2015). Network competence has a significant influence on the various types of firms' performances. According to entrepreneurs, more emphasis needs to be placed on strengthening networking skills to achieve better non-financial performance and business growth (Tehseen, 2018).

There are inconsistent findings about the impact of corporate networks on innovation and competitiveness.

Chen & Wang, (2008), Tamayo et al. (2015), Zeng, et al. (2010), and Gronum et al. (2012) analyze the influence of business networks on innovation. These results show that the company's network has a positive impact on innovation capabilities. In contrast to Love & Roper (2001) and Frishammar & Hörte (2005), the results show that relationships between companies do not affect innovation but are important for business success. Business networks are only complementary in the innovation process. Innovation is an important factor for a company to improve its competitiveness. The study of Nadia et al. (2016) shows that innovation has a strong positive impact on competitiveness. Supported by research by Sipa et al. (2015), innovation is the main driver of competitiveness. In contrast to research conducted by Cho et al. (2008) who surveyed Korean companies that produce printing, machinery, automobiles, and electronic equipment, found that innovation does not have a significant impact on company competitiveness.

Based on differences in research results, where there are no consistent results regarding the influence between business networks and business competitiveness, this study responds by testing innovation as a mediating variable as a new thing in this study. Innovation becomes an intervening variable that mediates the effect of business networking on competitiveness. This opinion is based on the model/proposed by Gronum et al. (2012). However, we will examine different perspectives, namely the competitiveness of the handicraft industry in Indonesia. Therefore, the purpose of this study is to find :

First, the influence of business networking on innovation. Second, the influence of innovation on firm competitiveness. Third, the influence of business networking on firm competitiveness. Fourth, business networking influences firm competitiveness are mediated by Innovation.

The implications of this study theoretically develop some literature related to business network relationships, innovation, and business competitiveness in SMEs. In addition, this research can be a reference for other researchers to develop research on the competitiveness of small and medium enterprises and later develop innovations that affect the improvement of business competitiveness. Practically, this research can be utilized by all related parties to build business networks, increase innovation capabilities, and increase company competitiveness in a sustainable manner.

**Perlu tambahan penguatan NOVELTY PENELITIAN**

## **Literature Review and Hypotheses Development**

### ***Firm Competitiveness***

A company's competitiveness refers to a company's ability to compete with other companies. Competitiveness can also be described as the position of productivity, where productivity is interpreted as the material produced by the pool (Porter, 1990). Another opinion states that a company's competitiveness is defined as the ability of a company to compete successfully in its environment (Tamayo et al., 2015). Competitiveness is defined as a nation's capability to command significant world request share in high technology products while maintaining the living norms of its citizens (Álvarez et al., 2009). The most competitive associations are in a better position to reach wider requests. also, the establishment's performance indicates that the establishment has a high position of competitiveness, and the more profitable enterprises tend to be more competitive (Tamayo et al., 2015). Competitive companies can achieve high profitability and achieve sustainable ventures. Conversely, due to weak competitiveness, companies can experience a decline in profits and eventually go bankrupt (Audretsch & Walshok, 2013).

The competitiveness of a company can be improved through internal improvements centered on human resources by increasing the ability to build networks and innovation. According to Osterle et al (2001) Only companies with innovative capabilities and business networks can contribute to the competitiveness of the company.

### ***Innovation***

Innovation is defined as the successful implementation of the creative ideas of an enterprise. Companies are expected to develop new ways of thinking when facing competitors, customers, and existing markets (Basuki et al., 2020). Afsar et al., (2014) stated that to encourage innovation, companies need to motivate their employees to adopt innovative work behaviors. According to Udin et al., (2022a), Innovative work behavior refers to all employee actions aimed at introducing, generating, and implementing ideas in an organization. However, innovative work behavior is very complex because it is not easy to generate creative ideas Udin et al., (2022b). According to Schwab

(2010), invention is one of the factors that impact a company's competitiveness. Also, (OECD, 2001) said that invention is a factor that can increase competitiveness. In the paper, Kuratko & Howard Frederick (2016) also said that invention can be a driving factor for establishing competitiveness. Terziovski (2007) innovation. is the operation of coffers to produce value for guests and companies by developing, the enhancing new products, processes, and services of an establishment. Chursin & Vlasov's (2017) invention is about performing product innovation by using innovative ideas and sources to produce new products (or produce old products with new manufacturing styles) and to generate new cash primarily. This is the establishment of business operations as a function.

Search for product registration, requirements, distribution, etc., i.e. regulation of the most important elements of a product or invention sample. The position of business success is determined by the position of invention perpetration in the establishment (Siregar et al., 2019). The capability to introduce is an important factor that must be possessed by entrepreneurs in managing business. Innovation capability shows that every business exertion carried out has novelty and uniqueness (Hendayana et al., 2019).

### ***Business Networking***

The capability of an establishment in networking is one of the most important effects in business. Xu, Lin, & Lin, (2008) cited that a business network is a long- term relationship among two or further associations, and the mechanisms through which similar connections take shape are neither request nor organizational scale. Networking has long been associated with sharing coffers among mates, access to requests, and new technologies that the establishment couldn't be suitable to pierce in insulation. The establishment tries to get the benefits of networking by calculating several factors similar to trust and confidence among network mates to be suitable to partake in strategic coffers (Bengesi & Roux, 2015). The capability to make a network is necessary for an entrepreneur, both newcomers and those who have long been involved in the business. The business will not be able to grow and develop without expansive networks. The capability to make a network will increase the number of guests so that deal growth will also increase. In the paper, Witt (2007) stated that the benefits that entrepreneurs admit from their mate networks are adding business success similar to adding profitability and also adding firm growth and value.

## **Hypotheses Development**

### ***Business Networking and Innovation***

According Gronum et al. (2012) identified networks as an important element in numerous studies on the invention process. Oyedokun Akintunde (2016) is an investigation of networks and innovative capabilities of entrepreneurs in the Nigerian plastics industry. The purpose of this study is to examine the extent to which networking stimulates creativity within this industriousness. To capture the relationship between the performance of connected networks and the size of innovative entrepreneurs, his two-dimensional construct containing six variables is assumed to be examined. The results confirmed that networking of employees and companies is suitable for promoting plastic-supported inventions. The company promotes and values the idea of sustained success, so individuals are not hysterical in coming up with ideas or demonstrating similar ideas. Directors are therefore encouraged to identify and promote networking skills that can stimulate

entrepreneurial invention and fair competition among frontline employees. Research by (Gronum et al., 2012) also shows that business networks contribute to inventions and achievements in small and medium-sized enterprises. Xu et al. (2008) also found that business networks were understood as factors positively associated with invention. Chen & Wang (2008) analyze the impact of social networks and new business inventions. The concept of social networking is studied as an internal and external social network configuration for members of the entrepreneurial team. The results show that internal and external social networking has a small positive impact on the innovative capabilities of a new business. Xu, Lin, & Lin (2008) Business networks, companies can facilitate innovation by increasing networks, more and more business networks are associated with better innovative capabilities. From an information processing standpoint, network enhancement can bring companies superior access to important ideas and opportunities, resulting in stronger innovative capabilities.

*H1: Business networking influence innovation*

### ***Business Networking and Firm Competitiveness***

A successfully built business network can overcome the limitations faced by the company, especially getting ease in getting access to various resources at low cost, and establishing cooperation with other companies. Building a strong business network can have a positive impact on the company, especially establishing beneficial mutual relationships, which can attract more opportunities for the company, so that it will increase competitiveness.

Abou-Moghli & Muala (2012) investigate the impact of entrepreneurial networks on business success. The results of the study show that the statistics of entrepreneurial networks (social networks, business networks, and inter-organizational strategic networks) have a significant impact on continued enterprise success. This article (Al-mommani, Al-afifi & Mahfuz, 2015) also highlights the importance of social media and social networks in maximizing the competitive value of SMEs. They suggest that micro, small, and/or medium-sized businesses would benefit from implementing effective social media marketing strategies. Witt (2007) also states that partner networks increase profitability, business growth, and value. Álvarez et al., (2009) study shows the importance of collaboration (networking) for the competitiveness of manufacturing companies. The power of networks to encourage competition in economic activity is currently one of the aspects analyzed in this study. Meanwhile, research conducted by Al-mommani et al., (2015) found that business networks have disadvantages such as time-consuming and lack of feedback control that can affect the performance of SMEs and reduce their market share. Therefore, small businesses need to rethink customer relationship management by creating conceptual and operational frameworks that provide structure with a certain degree of flexibility.

*H2: Business networking influence firm competitiveness*

### ***Innovation and Firm Competitiveness***

Soto-Acosta et al. (2016) conducted a study on organizational innovation in which e-business plays a mediating role in the performance of SMEs in the Spanish manufacturing industry. The results

of this study were also reported by Visnjic et al., (2014) They show that both service innovation and product innovation can improve firm performance. Innovation is often associated with an organization's competitive advantage (Kussudyarsana et al., 2023)

Schwab (2010) states that a company's competitiveness is influenced by innovation. Innovation is very important because it allows knowledge to be gained and technological developments to be integrated and adapted. Innovation is a factor that increases competitiveness (OECD, 2001). Product innovation and process innovation influence corporate performance (Suliyanto et al., 2019). Innovation plays an important role in improving companies' competitiveness and performance (Siregar et al., 2022; Pranowo et al., 2020; Siregar et al., 2021; Nasution et al., 2021; Siregar et al., 2020; Siregar et al., 2021).

Nadia et al. (2016) discussed innovation and competitive advantage in Malaysia. They found that innovation can affect the competitiveness of SMEs in Malaysia's food industry. Research results show that innovation has a strong positive impact on competitive advantage. The findings also note that SMEs need to invest in innovation to gain a competitive advantage. This study also found the moderating effect of firm age and innovation on competitive advantage.

*H3: Innovation influence firm competitiveness*

### ***Mediating Role of Innovation***

Small and medium enterprises (SMEs) usually have limited resources, especially when compared to large companies, they tend not to innovate. However, small businesses are most likely to innovate because of their proximity to employees, suppliers, and customers. Many experts emphasize the importance of innovation for small and medium-sized businesses to survive, grow, and succeed in the market in the long run (Ng & Hamilton, 2015). The importance of innovation to the success, growth, and competitive advantage of SMEs in both developed and developing countries has been widely recognized in many studies (Yasin et al., 2014). According to Kuratko & Howard Frederick (2016), innovation along with economic driving force and economic efficiency are factors that increase the competitiveness of companies. A study by Nadia et al. (2016) reinforces this opinion with their findings that innovation has a strong positive impact on the competitiveness of SMEs in the Malaysian food industry. Chursin & Vlasov (2017) state that innovation becomes the foundation for companies to increase their competitiveness.

The greater the ability of a company to innovate, the more competitive the company will be. Innovation is a key element of a company's success. The greater the ability of a company to innovate, the more competitive the company will be. This shows that innovation guarantees increased competitiveness for companies and organizations. An important factor in the occurrence of company innovation is whether or not a company is able to build a business network. Liebowitz (2012) stated that business networks play a very important role in business innovation. Similarly, research (Hilmi et al., 2010) provides empirical evidence that innovation has a direct positive impact on Malaysian SMEs. In addition, several other studies have provided empirical evidence regarding the mediating role of innovation in different contexts (Salisu & Bakar, 2022); (Rodríguez & Nieto, 2010).



Increasing innovation capacity, among others, requires a wider corporate network. The better you manage your business network, the greater your ability to innovate. If business networks and innovation are left inadequate, it will be difficult to share creative and innovative ideas. The market in general demands high-quality and competitive products both in terms of product and price, so if innovation is left unchecked, it will be difficult to penetrate a wider market. Therefore, the company's ability to build business networks can increase its innovation capacity. Innovation as a mediating variable focuses on synergy as a tool to increase competitiveness. Innovation cannot be done without the role of the ability to establish communication with business networks. If the company wants to increase its ability to compete, then pay attention to factors that can make companies innovate, one of which is the ability to build business networks.

*H4: Business networking influence firm competitiveness are mediated by Innovation*

## **Research Methods**

### ***Participants***

This study uses a quantitative approach by conducting survey research. Samples were taken from the population using a questionnaire as a data collection tool. A survey was conducted on 253 handicraft sector SMEs scattered in West Java. To obtain samples using purposive sampling with the following criteria: (a) SMEs based on Law no. 20 of 2008 about Micro, Small, and Medium Enterprises (MSMEs), namely having a turnover above Rp. 300,000,000, - and a workforce of more than 5 people. (b) SME sectors that have been operating for more than three years. Of the 253 participants, the characteristics of respondents showed that most respondents were men (74 percent), while women were only 26 percent. The characteristics of respondents based on age are dominated by respondents aged between 50 years and under or dominated by respondents who are in productive age. The characteristics of respondents based on education level are dominated by respondents with lower secondary education from the entire research sample, which is as much as 88 percent, while those with higher education are only 12 percent. Based on the length of running a business, dominated by SMEs that have been running a business for 3 to 15 years, which is as much as 78 percent. While the remaining 22 percent run a business for less than 3 years. The data were analyzed using structural equation modeling with Amos Software Version 23.

### ***Measures***

This study uses a survey by asking questions about innovation, business networking, and competitiveness. The total instrument in our study consists of 10 items that we measured on a Likert scale of 1 to 5; 1-very low, 2-low, 3-moderate, 4-high, 5-very high. In this study, we measured innovation by using 3 items of questions, business networking using 3 items of questions, competitiveness using 4 questions adopted from (Man, Lau, & Chan, 2002), (Chong, 2008), (Catherine L. Wang, 2004), (Zeng, S.X. & Tam, 2010), (Peris-Ortiz, 2017).

**Table 1.** Construct and Measurements

Variable	Indicator	n item
Business Networking	Communication with customers	3
	Commitment and mutual trust with suppliers	
	Communication with competitors	
Innovation	Simplification of the production process.	3
	Development of product variations	
	New ways of marketing products	
Competitiveness	High of productivity	4
	The growth of sales	
	Market share	
	Response to opportunities and threats	

## Results and Discussion

### *Measurement Model*

Based on table 1, informs that all indicators (manifest variable) have a factor loading ( $\lambda$ )  $\geq 0.5$ . It means that all indicators on each construct (latent variable) are valid and significant. We also can see the Composite Reliability (CR) of a business networking value of  $0.781 > 0.7$  and the Average Variance Extracted (AVE) value is  $0.545 > 0.5$ . The Composite Reliability (CR) of innovation value of  $0.810 > 0.7$  and the Average Variance Extracted (AVE) value is  $0.594 > 0.5$ . The Composite Reliability (CR) of competitiveness value of  $0.881 > 0.7$  and the Average Variance Extracted (AVE) value is  $0.650 > 0.5$ . It means that all indicators in this model are valid and reliable.

**Table 2. The Measurement Model**

Latent Variable	Manifest Variable	Factor Loading ( $\lambda$ )	CR	VE	Decision
Business Networking	Communication with the customer (X1)	0.781	0.780	0.545	Valid and Reliable
	Commitment and mutual trust with the supplier (X2)	0.713			
	Communication with competitors (X3)	0.718			
Innovation	Simplification of the production process. (X4)	0.789	0.810	0.594	Valid and Reliable
	Development of product variations (X5)	0.820			
	New ways of marketing products (X6)	0.698			
Competitiveness	High of productivity (Y1)	0.819	0.881	0.650	Valid and Reliable
	Growth of sales (Y2)	0.848			
	Market Share (Y3)	0.834			
	Response to opportunities and threats (Y4)	0.716			

Source : Research Data

### Goodness of Fit Test

The criteria to int testing of goodness of fit the model are AGFI value > 0.90, GFI value > 0.90, CFI value > 0.90, TLI value > 0.90, RMSEA < 0.08, and RMR value < 0.05 (Hair et al, (2017).

**Table 3. The goodness of Fit Test**

Goodness of Fit Index	Cut Of Value	Result	Decision
CMIN/DF	< 2.0	0.841	Good Fit
GFI	> 0.90	0.980	Good Fit
AGFI	≥ 0.90	0.965	Good Fit
CFI	> 0.95	1.000	Good Fit
TLI	> 0.95	1.006	Good Fit
RMR	≤ 0.05	0.018	Good Fit
RMSEA	< 0.08	0.023	Good Fit

Source : Research Data

Based on table 3, shows that all goodness of fit index are in good fit criteria. The value of CMIN/DF is  $0.481 < 2$ , GFI value of  $0.980 > 0.90$ , AGFI value of  $0.965 > 0.90$ , CFI value of  $1.000 > 0.90$ , TLI value of  $1.006 > 0.95$ , RMR value  $0.018 < 0.05$  RMSEA value of  $0.023 < 0.08$ .

### Hypothesis Testing

Hypothesis testing is done by analyzing regression weight significance values to determine the effect of business networking on the competitiveness of SMEs in the handicraft sector in West Java. According to Byrne (2010), the basic decision-making test of significance for regression weight is the value of the critical ratio (C.R.) > 1.96 and probability value < 0.05.

**Table 4. Regression Weights**

			Estimate	C.R.	P	Decision
Innovation	<---	Business_Networking	.628	6.987	.000	Supported
Firm_Competitiveness	<---	Business_Networking	.282	3.480	.000	Supported
Firm_Competitiveness	<---	Innovation	.599	6.661	.000	upported

Source : Research Data

**Table 5. Indirect Effects**

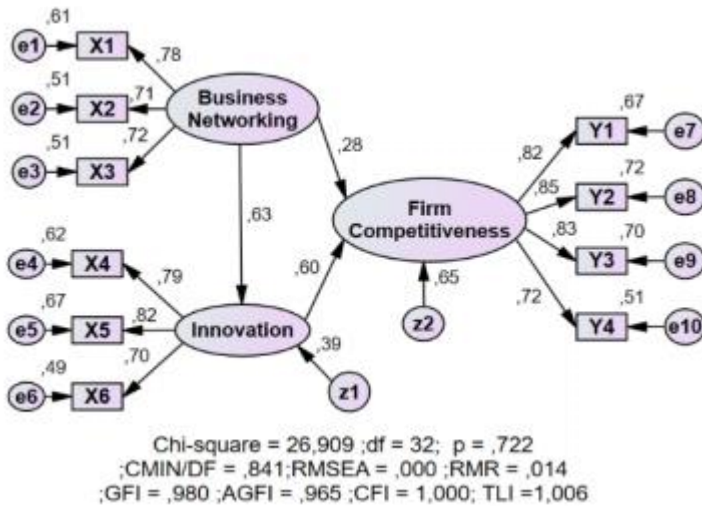
	Business_Networking	Innovation	Firm_Competitiveness
Innovation	.000	.000	.000
Firm_Competitiveness	.373	.000	.000

Source : Research Data

Based on the results of the study, all hypotheses are supported. Business networking, innovation positively and significantly influence firm competitiveness directly and indirectly. The relationship between business networking and innovation has the CR value (t-value) of  $6.987 > 1.96$  and probability value is  $0.000 < 0.05$ . It means that business networking influence innovation positively. The influence of business networks on competitiveness has CR value (t-value) of  $3.480$  and p-value  $0.000 < 0.05$ . It means that the hypothesis is accepted. The influence of innovation on competitiveness has CR value (t-value) of  $6.661$  and p-value  $0.000 < 0.05$ . It means that the

hypothesis is accepted. In other term, innovation can improve the handicraft competitiveness in Indonesia.

Tabel 5 shows the results of testing innovation as an intervening variable between the influence of business networks on company competitiveness obtain indirect value that is greater than its direct value. Testing the relationship between the two variables showed an indirect value of 0.373 and a direct value of 0.282. Therefore, the fourth hypothesis that states there is an influence of business networks on company competitiveness and innovation as an intervening variable is accepted.



Source : Research Data

Figure 2. Structural Model

**PERLU TAMBAHAN PENJELASAN FIGURE 2**

**DISCUSSION**

This study investigates the impact of business networks and innovation on business competitiveness using the Indonesian handicraft industry as an example. The results show that all the hypotheses of this study support the model we proposed based on the literature and previous studies. The results of the first hypothesis prove that business networks influence innovation. This means that strong business networks encourage entrepreneurs to innovate and keep their businesses growing. The results of this study are consistent with the findings of Chen & Wang (2008) who analyzed social networks and their impact on new business innovations. They found that internal and external social networks had a small positive impact on new firms' ability to innovate. Xu, Lin, and Lin (2008) also found that firms can promote innovation by expanding their networks, as more corporate networks are associated with better innovation capabilities.

The results of the second hypothesis also provide evidence that there is an impact on the competitiveness of Indonesia's handicraft industry among business networks. In other words, you

need a good corporate network to improve your competitiveness. This finding is consistent with that of Colleen (2014). This study provides a more detailed explanation of the role of social networks and their impact on business outcomes. Jack, et al. (2010) argued that entrepreneurial networks are important and useful for many companies.

The third hypothesis also provides evidence that innovation can improve the competitiveness of Indonesia's handicraft industry. Following the theory of Chursin & Vlasov (2017), they state that innovation is the basis for achieving competitiveness. The results of this study are consistent with those of Kuratko and Howard Frederick (2016), who state that factors based on economic drivers, economic efficiency, and innovation are the drivers of competitiveness. Chursin & Vlasov (2017) state that innovation is the basis of competitiveness. The greater a company's ability to innovate, the more competitive it will be. This means that innovation guarantees increased competitiveness for companies and organizations.

The results of testing the fourth hypothesis of business networking have a significant positional influence on competitiveness through innovation. This means that the innovation variable can be categorized as a mediator between business networking against competitiveness. Companies should focus on building their business networking to drive innovation capabilities. These results confirm that a strategic step to encourage the improvement of innovation capabilities requires strengthening the ability to build business networking that leads to competitive advantage. This result is reinforced by the findings of Lechner & Dowling (2003), that innovation mediates the influence of business networking on business competitiveness. In line with Lin & Lin (2016) forming a network can share knowledge, accelerate innovation, reduce transaction costs, better reputation, and the creation of new market opportunities, thereby strengthening the Company's competitiveness.

## **Conclusion and Suggestion**

This study empirically investigated the relationship between business networks and innovation and competitiveness in the Indonesian handicraft industry. The results show that business networks and innovation have a significant impact on competitiveness. Innovation has the greatest impact on a company's competitiveness. Rather than the direct effect of business networks on business competitiveness, the indirect effect of business networks through innovation has the greatest impact on business competitiveness. Therefore, innovation can mediate the influence of business networks on a firm's competitiveness. We recommend improving innovation through product variations, improving production processes, improving a company's network capabilities, etc. Expanding our business network of customers, suppliers, and competitors.

This study enriches the existing scientific literature and further examines and investigates the relationship between these variables. Practically, the results of this study can provide input to owners or managers to pay attention to business networks that affect business innovation and competitiveness. Furthermore, the study suggests that SMEs strive to strengthen mutually

beneficial partnerships between SMEs or between SMEs and large entrepreneurs to prevent the negative impact of poor business networks and competitiveness, get partners online and build relationships with other entrepreneurs, and Provide opportunities for customers to provide input and receive feedback on new product formulations and designs. With suppliers who maintain commitment and mutual trust. Benchmark your competitors in the development and manufacture of innovative products. Small and medium-sized enterprises can form business groups that facilitate partnerships with other parties, allowing small and medium-sized businesses to control distribution and build larger, more profitable business models. SMEs need to maintain customer loyalty and satisfaction, including creating communities where customers can encourage repeat purchases and participate in promoting their products. Create a network pattern in the form of subcontracting networks and cluster development. In this way, small and medium-sized businesses gain the necessary competitive advantage.

This study provides new insights into the importance of SMEs building business networks to increase their competitiveness through innovation capabilities. Small and medium enterprises that can expand their business networks through communication networks with customers, suppliers, and competitors, will get creative ideas to innovate in the production process, develop product variations, and apply new methods in product marketing. This will be very useful to increase business competitiveness.

The limitation of this study is that, first, this study only uses a sample of SMEs in the craft sector, limiting its generalization ability to SMEs as a whole. Second, the study relied on data collected by distributing questionnaires to respondents. Respondents' answers may not reflect actual circumstances. We encourage future researchers to consider using other methods to collect data. Third, this study only focuses on business networking variables that influence innovation and its impact on competitiveness and does not discuss other variables that may play a greater role in improving competitiveness. Therefore, researchers suggest that further research is needed.

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## Business Networking, Innovation, and Firm Competitiveness: The Case of Handicraft Industry in Indonesia

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### Abstract

*This study aims to examine the influence of business networking and innovation on firm competitiveness in the case of the handicraft industry in Indonesia. The sample in this study was the owner of the Handicraft Industry in Indonesia. The hypotheses were analyzed by using the structural/equation modeling (SEM) approach. The result showed that business networking and innovation positively influence the competitiveness of the handicraft industry in Indonesia. This paper gives additional insights into the relationship between business networking, and innovation on firm competitiveness in handicraft industry context in Indonesia, and the innovation can mediate the influence of business networking on firm competitiveness. Business networking capabilities must receive important attention from SMEs, especially in the creative industry in the craft sector. SMEs must establish good communication with customers, suppliers, and competitors. There is only one independent variable in this research, namely business network, so it is less comprehensive. To be more comprehensive, other independent variables can be added such as technological ability, marketing knowledge, and entrepreneurial ability.*

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## Introduction

The handcraft industry is a part of the creative industries in Indonesia. The number of small and medium enterprises in the handcraft sector reach 700.000 units with the employment of nearly 1.3 million people in Indonesia. still, the request share of handcraft assiduity is fairly low at 1.26, indeed though the eventuality is relatively large( <http://ksp.go.id>). According to the World Economic Forum (WEF) in 2020, Indonesia's profitable competitiveness is still low compared to other ASEAN. countries similar as; Singapore, Malaysia, and Thailand (<http://www3.weforum.org>). The low competitiveness influences the sustainability of an establishment (Metekohy, 2013).

The addition of firm competitiveness can be done by making internal advancements, similar to invention and perfecting business networking. The results of the exploration set up that there was a donation of business networks and inventions to the competitiveness of SMEs (Gronum et al., 2012). According to Osterle et al (2001) only innovative enterprises that have business network capabilities can contribute to firm competitiveness. Kuratko & Howard Frederick (2016) state that enterprises grounded on invention affect the establishment competitiveness. The results of exploration conducted in Australia also set that invention was an important factor in supporting the businesses' competitiveness and success, Zaheer (2015). The finding in another study also bandied that ingeniousness is veritably important and will give benefits to the business proprietor in the sustainability of their businesses, so that business objects will be achieved efficiently and effectively, Zuliarni (2014).

The results of this study are also supported by the results of research conducted by (Visnjic et al., 2014) found that both service innovation and product innovation can improve business performance. The competitiveness of companies can be promoted by creating the necessary conditions to foster product innovation, strengthen cooperation with retailers, and build close cooperation networks (Tamayo et al., 2015). Network competence has a significant influence on the various types of firms' performances. According to entrepreneurs, more emphasis needs to be placed on strengthening networking skills to achieve better non-financial performance and business growth (Tehseen, 2018).

There are inconsistent findings about the impact of corporate networks on innovation and competitiveness. Chen & Wang, (2008), Tamayo et al. (2015), Zeng, et al. (2010), and Gronum et al. (2012) analyze the influence of business networks on innovation. These results show that the company's network has a positive impact on innovation capabilities. In contrast to Love & Roper (2001) and Frishammar & Hörte (2005), the results show that relationships between companies do not affect innovation but are important for business success. Business networks are only complementary in the innovation process. Innovation is an important factor for a company to improve its competitiveness. The study of Nadia et al. (2016) shows that innovation has a strong positive impact on competitiveness. Supported by research by Sipa et al. (2015), innovation is the main driver of competitiveness. In contrast to research conducted by Cho et al. (2008) who surveyed Korean companies that produce printing, machinery, automobiles, and electronic equipment, found that innovation does not have a significant impact on company competitiveness.

Based on differences in research results, where there are no consistent results regarding the influence between business networks and business competitiveness, this study responds by testing innovation as a mediating variable as a new thing in this study. Innovation becomes an intervening variable that mediates the effect of business networking on competitiveness.



This opinion is based on the model/proposed by Gronum et al. (2012). However, we will examine different perspectives, namely the competitiveness of the handicraft industry in Indonesia. Therefore, the purpose of this study is to find: First, the influence of business networking on innovation. Second, the influence of innovation on firm competitiveness. Third, the influence of business networking on firm competitiveness. Fourth, business networking influences firm competitiveness are mediated by Innovation.

The implications of this study theoretically develop some literature related to business network relationships, innovation, and business competitiveness in SMEs. In addition, this research can be a reference for other researchers to develop research on the competitiveness of small and medium enterprises and later develop innovations that affect the improvement of business competitiveness. Practically, this research can be utilized by all related parties to build business networks, increase innovation capabilities, and increase company competitiveness in a sustainable manner.

## **Literature Review**

### **Firm Competitiveness**

A company's competitiveness refers to a company's ability to compete with other companies. Competitiveness can also be described as the position of productivity, where productivity is interpreted as the material produced by the pool (Porter, 1990). Another opinion states that a company's competitiveness is defined as the ability of a company to compete successfully in its environment (Tamayo et al., 2015). Competitiveness is defined as a nation's capability to command significant world request share in high technology products while maintaining the living norms of its citizens (Álvarez et al., 2009). The most competitive associations are in a better position to reach wider requests. also, the establishment's performance indicates that the establishment has a high position of competitiveness, and the more profitable enterprises tend to be more competitive (Tamayo et al., 2015). Competitive companies can achieve high profitability and achieve sustainable ventures. Conversely, due to weak competitiveness, companies can experience a decline in profits and eventually go bankrupt (Audretsch & Walshok, 2013). The competitiveness of a company can be improved through internal improvements centered on human resources by increasing the ability to build networks and innovation. According to Osterle et al (2001) Only companies with innovative capabilities and business networks can contribute to the competitiveness of the company.

### **Innovation**

Innovation is defined as the successful implementation of the creative ideas of an enterprise. Companies are expected to develop new ways of thinking when facing competitors, customers, and existing markets (Basuki et al., 2020). Afsar et al., (2014) stated that to encourage innovation, companies need to motivate their employees to adopt innovative work behaviors. According to Udin et al., (2022), Innovative work behavior refers to all employee actions aimed at introducing, generating, and implementing ideas in an organization. However, innovative work behavior is very complex because it is not easy to generate creative ideas Udin et al., (2022). According to Schwab (2010), invention is one of the factors that impact a company's competitiveness. Also, (OECD, 2001) said that invention is a factor that can increase competitiveness. In the paper, Kuratko & Howard Frederick (2016) also said that invention can be a driving factor for establishing competitiveness. Terziovski (2007) innovation. is the operation of coffers to produce value for guests and companies by developing, the enhancing new products, processes, and services of an establishment. Chursin & Vlasov's (2017) invention is about performing product innovation by using innovative ideas and sources to



produce new products (or produce old products with new manufacturing styles) and to generate new cash primarily. This is the establishment of business operations as a function.

Search for product registration, requirements, distribution, etc., i.e. regulation of the most important elements of a product or invention sample. The position of business success is determined by the position of invention perpetration in the establishment (Siregar et al., 2019). The capability to introduce is an important factor that must be possessed by entrepreneurs in managing business. Innovation capability shows that every business exertion carried out has novelty and uniqueness (Hendayana et al., 2019).

### **Business Networking**

The capability of an establishment in networking is one of the most important effects in business. Xu, Lin, & Lin, (2008) cited that a business network is a long- term relationship among two or further associations, and the mechanisms through which similar connections take shape are neither request nor organizational scale. Networking has long been associated with sharing coffers among mates, access to requests, and new technologies that the establishment couldn't be suitable to pierce in insulation. The establishment tries to get the benefits of networking by calculating several factors similar to trust and confidence among network mates to be suitable to partake in strategic coffers (Bengesi & Roux, 2015). The capability to make a network is necessary for an entrepreneur, both newcomers and those who have long been involved in the business. The business will not be able to grow and develop without expansive networks. The capability to make a network will increase the number of guests so that deal growth will also increase. In the paper, Witt (2007) stated that the benefits that entrepreneurs admit from their mate networks are adding business success similar to adding profitability and also adding firm growth and value.

### **Business Networking and Innovation**

According Gronum et al. (2012) identified networks as an important element in numerous studies on the invention process. Oyedokun Akintunde (2016) is an investigation of networks and innovative capabilities of entrepreneurs in the Nigerian plastics industry. The purpose of this study is to examine the extent to which networking stimulates creativity within this industriousness. To capture the relationship between the performance of connected networks and the size of innovative entrepreneurs, his two-dimensional construct containing six variables is assumed to be examined. The results confirmed that networking of employees and companies is suitable for promoting plastic-supported inventions. The company promotes and values the idea of sustained success, so individuals are not hysterical in coming up with ideas or demonstrating similar ideas. Directors are therefore encouraged to identify and promote networking skills that can stimulate entrepreneurial invention and fair competition among frontline employees.

Research by (Gronum et al., 2012) also shows that business networks contribute to inventions and achievements in small and medium-sized enterprises. Xu et al. (2008) also found that business networks were understood as factors positively associated with invention. Chen & Wang (2008) analyze the impact of social networks and new business inventions. The concept of social networking is studied as an internal and external social network configuration for members of the entrepreneurial team. The results show that internal and external social networking has a small positive impact on the innovative capabilities of a new business. Xu, Lin, & Lin (2008) Business networks, companies can facilitate innovation by increasing networks, more and more business networks are associated with better innovative capabilities. From an information processing standpoint, network enhancement can bring companies



superior access to important ideas and opportunities, resulting in stronger innovative capabilities.

### ***H<sub>1</sub>: Business networking influence innovation***

#### **Business Networking and Firm Competitiveness**

A successfully built business network can overcome the limitations faced by the company, especially getting ease in getting access to various resources at low cost, and establishing cooperation with other companies. Building a strong business network can have a positive impact on the company, especially establishing beneficial mutual relationships, which can attract more opportunities for the company, so that it will increase competitiveness.

Abou-Moghli & Muala (2012) investigate the impact of entrepreneurial networks on business success. The results of the study show that the statistics of entrepreneurial networks (social networks, business networks, and inter-organizational strategic networks) have a significant impact on continued enterprise success. This article (Al-mommani, Al-afifi & Mahfuz, 2015) also highlights the importance of social media and social networks in maximizing the competitive value of SMEs. They suggest that micro, small, and/or medium-sized businesses would benefit from implementing effective social media marketing strategies. Witt (2007) also states that partner networks increase profitability, business growth, and value. Álvarez et al., (2009) study shows the importance of collaboration (networking) for the competitiveness of manufacturing companies. The power of networks to encourage competition in economic activity is currently one of the aspects analyzed in this study. Meanwhile, research conducted by Al-mommani et al., (2015) found that business networks have disadvantages such as time-consuming and lack of feedback control that can affect the performance of SMEs and reduce their market share. Therefore, small businesses need to rethink customer relationship management by creating conceptual and operational frameworks that provide structure with a certain degree of flexibility.

### ***H<sub>2</sub>: Business networking influence firm competitiveness***

#### **Innovation and Firm Competitiveness**

Soto-Acosta et al. (2016) conducted a study on organizational innovation in which e-business plays a mediating role in the performance of SMEs in the Spanish manufacturing industry. The results of this study were also reported by Visnjic et al., (2014) They show that both service innovation and product innovation can improve firm performance. Innovation is often associated with an organization's competitive advantage (Kussudyarsana et al., 2023)

Schwab (2010) states that a company's competitiveness is influenced by innovation. Innovation is very important because it allows knowledge to be gained and technological developments to be integrated and adapted. Innovation is a factor that increases competitiveness (OECD, 2001). Product innovation and process innovation influence corporate performance (Suliyanto et al., 2019). Innovation plays an important role in improving companies' competitiveness and performance (Siregar et al., 2022; Pranowo et al., 2020; Siregar et al., 2021; Nasution et al., 2021; Siregar et al., 2020; Siregar et al., 2021).

Nadia et al. (2016) discussed innovation and competitive advantage in Malaysia. They found that innovation can affect the competitiveness of SMEs in Malaysia's food industry. Research results show that innovation has a strong positive impact on competitive advantage. The





findings also note that SMEs need to invest in innovation to gain a competitive advantage. This study also found the moderating effect of firm age and innovation on competitive advantage.

### ***H<sub>3</sub>: Innovation influence firm competitiveness***

#### **Mediating Role of Innovation**

Small and medium enterprises (SMEs) usually have limited resources, especially when compared to large companies, they tend not to innovate. However, small businesses are most likely to innovate because of their proximity to employees, suppliers, and customers. Many experts emphasize the importance of innovation for small and medium-sized businesses to survive, grow, and succeed in the market in the long run (Ng & Hamilton, 2015). The importance of innovation to the success, growth, and competitive advantage of SMEs in both developed and developing countries has been widely recognized in many studies (Yasin et al., 2014). According to Kuratko & Howard Frederick (2016), innovation along with economic driving force and economic efficiency are factors that increase the competitiveness of companies. A study by Nadia et al. (2016) reinforces this opinion with their findings that innovation has a strong positive impact on the competitiveness of SMEs in the Malaysian food industry. Chursin & Vlasov (2017) state that innovation becomes the foundation for companies to increase their competitiveness.

The greater the ability of a company to innovate, the more competitive the company will be. Innovation is a key element of a company's success. The greater the ability of a company to innovate, the more competitive the company will be. This shows that innovation guarantees increased competitiveness for companies and organizations. An important factor in the occurrence of company innovation is whether or not a company is able to build a business network. Liebowitz (2012) stated that business networks play a very important role in business innovation. Similarly, research (Hilmi et al., 2010) provides empirical evidence that innovation has a direct positive impact on Malaysian SMEs. In addition, several other studies have provided empirical evidence regarding the mediating role of innovation in different contexts (Salisu & Bakar, 2022); (Rodríguez & Nieto, 2010).

Increasing innovation capacity, among others, requires a wider corporate network. The better you manage your business network, the greater your ability to innovate. If business networks and innovation are left inadequate, it will be difficult to share creative and innovative ideas. The market in general demands high-quality and competitive products both in terms of product and price, so if innovation is left unchecked, it will be difficult to penetrate a wider market. Therefore, the company's ability to build business networks can increase its innovation capacity. Innovation as a mediating variable focuses on synergy as a tool to increase competitiveness. Innovation cannot be done without the role of the ability to establish communication with business networks. If the company wants to increase its ability to compete, then pay attention to factors that can make companies innovate, one of which is the ability to build business networks.

### ***H<sub>4</sub>: Business networking influence firm competitiveness are mediated by Innovation***

## **Research Methods**

### **Participants**

This study uses a quantitative approach by conducting survey research. Samples were taken from the population using a questionnaire as a data collection tool. A survey was conducted on 253 handicraft sector SMEs scattered in West Java. To obtain samples using purposive



sampling with the criteria SMEs based on Law no. 20 of 2008 and have been operating for more than three years. Of the 253 participants, the characteristics of respondents showed that most respondents were men (74 percent), while women were only 26 percent. The characteristics of respondents based on age are dominated by respondents aged between 50 years and under or dominated by respondents who are in productive age. The characteristics of respondents based on education level are dominated by respondents with lower secondary education from the entire research sample, which is as much as 88 percent, while those with higher education are only 12 percent. Based on the length of running a business, dominated by SMEs that have been running a business for 3 to 15 years, which is as much as 78 percent. While the remaining 22 percent run a business for less than 3 years. The data were analyzed using structural equation modeling with Amos Software Version 23.

## Measures

This study uses a survey by asking questions about innovation, business networking, and competitiveness. The total instrument in our study consists of 10 items that we measured on a Likert scale of 1 to 5; 1-very low, 2-low, 3-moderate, 4-high, 5-very high. In this study, we measured innovation by using 3 items of questions, business networking using 3 items of questions, competitiveness using 4 questions adopted from (Man, Lau, & Chan, 2002), (Chong, 2008), (Catherine L. Wang, 2004), (Zeng, S.X. & Tam, 2010), (Peris-Ortiz, 2017).

**Table 1.** Construct and Measurements

Variable	Indicator	item
Business Networking	1. Communication with customers	3
	2. Commitment and mutual trust with suppliers	
	3. Communication with competitors	
Innovation	1. Simplification of the production process.	3
	2. Development of product variations	
	3. New ways of marketing products	
Competitiveness	1. High of productivity	4
	2. The growth of sales	
	3. Market share	
	4. Response to opportunities and threats	

Source: Research Data

## Results

### Measurement Model

Based on table 1, informs that all indicators (manifest variable) have a factor loading ( $\lambda$ )  $\geq 0.5$ . It means that all indicators on each construct (latent variable) are valid and significant. We also can see the Composite Reliability (CR) of a business networking value of  $0.781 > 0.7$  and the Average Variance Extracted (AVE) value is  $0.545 > 0.5$ . The Composite Reliability (CR) of innovation value of  $0.810 > 0.7$  and the Average Variance Extracted (AVE) value is  $0.594 > 0.5$ . The Composite Reliability (CR) of competitiveness value of  $0.881 > 0.7$  and the Average Variance Extracted (AVE) value is  $0.650 > 0.5$ . It means that all indicators in this model are valid and reliable.



**Tabel 2.** The Measurement Model

Latent Variable	Manifest Variable	Factor Loading (λ)	C.R.	VE	Decision
Business Networking	Communication with the customer (X1)	0.781	0.780	0.545	Valid and Reliable
	Commitment and mutual trust with the supplier (X2)	0.713			
	Communication with competitors (X3)	0.718			
Innovation	Simplification of the production process. (X4)	0.789	0.810	0.594	Valid and Reliable
	Development of product variations (X5)	0.820			
	New ways of marketing products (X6)	0.698			
Competitiveness	High of productivity (Y1)	0.819	0.881	0.650	Valid and Reliable
	Growth of sales (Y2)	0.848			
	Market Share (Y3)	0.834			
	Response to opportunities and threats (Y4)	0.716			

Source: Research Data

### Goodness of Fit Test

The criteria to int testing of goodness of fit the model are AGFI value > 0.90, GFI value > 0.90, CFI value > 0.90, TLI value > 0.90, RMSEA < 0.08, and RMR value < 0.05 (Hair et al, (2017).

**Table 3.** The goodness of Fit Test

Goodness of Fit Index	Cut Of Value	Result	Decision
CMIN/DF	< 2.0	0.841	Good Fit
GFI	> 0.90	0.980	Good Fit
AGFI	≥ 0.90	0.965	Good Fit
CFI	> 0.95	1.000	Good Fit
TLI	> 0.95	1.006	Good Fit
RMR	≤ 0.05	0.018	Good Fit
RMSEA	< 0.08	0.023	Good Fit

Source: Research Data

Based on table 3, shows that all goodness of fit index are in good fit criteria. The value of CMIN/DF is 0.481 < 2, GFI value of 0.980 > 0.90, AGFI value of 0.965 > 0.90, CFI value of 1.000 > 0.90, TLI value of 1.006 > 0.95, RMR value 0.018 < 0.05m RMSEA value of 0.023 < 0.08.

### Hypothesis Testing

Hypothesis testing is done by analyzing regression weight significance values to determine the effect of business networking on the competitiveness of SMEs in the handicraft sector in West Java. According to Byrne (2010), the basic decision-making test of significance for regression weight is the value of the critical ratio (C.R.) > 1.96 and probability value < 0.05.

**Tabel 4.** Regression Weights

	Estimate	C.R.	P	Decision
Innovation <--- Business_Networking	.628	6.987	.000	Supported



Firm_Competitiveness	<---	Business_Networking	.282	3.480	.000	Supported
Firm_Competitiveness	<---	Innovation	.599	6.661	.000	upported

Source: Research Data

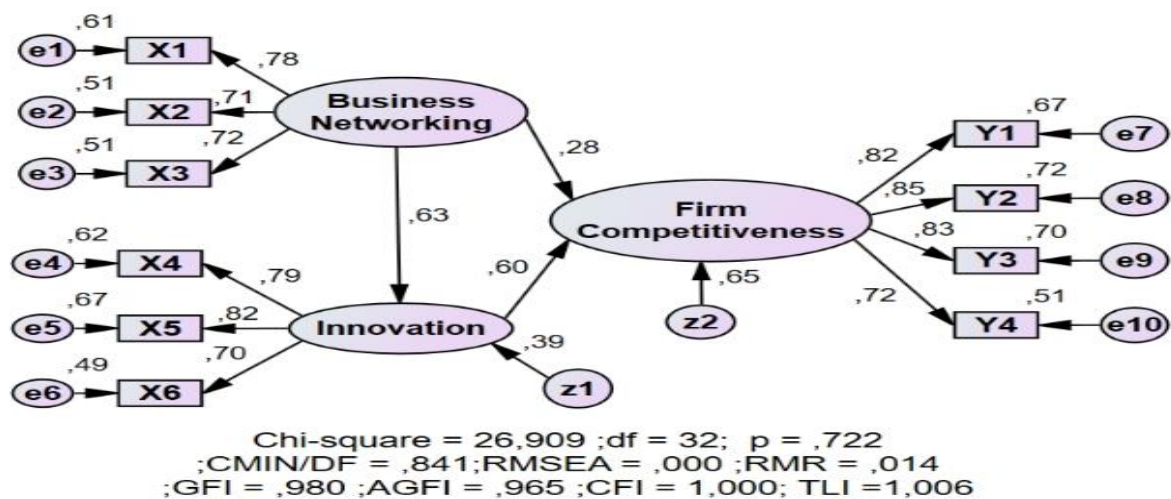
**Tabel 5. Indirect Effects**

	Business_Networking	Innovation	Firm_Competitiveness
Innovation	.000	.000	.000
Firm_Competitiveness	.373	.000	.000

Source: Research Data

Based on the results of the study, all hypotheses are supported. Business networking, innovation positively and significantly influence firm competitiveness directly and indirectly. The relationship between business networking and innovation has the CR value (t-value) of  $6.987 > 1.96$  and probability value is  $0.000 < 0.05$ . It means that business networking influence innovation positively. The influence of business networks on competitiveness has CR value (t-value) of 3.480 and p-value  $0.000 < 0.05$ . It means that the hypothesis is accepted. The influence of innovation on competitiveness has CR value (t-value) of 6.661 and p-value  $0.000 < 0.05$ . It means that the hypothesis is accepted. In other term, innovation can improve the handicraft competitiveness in Indonesia.

Tabel 5 and Figure.2 shows the results of testing innovation as an intervening variable between the influence of business networks on company competitiveness obtain indirect value that is greater than its direct value. Testing the relationship between the two variables showed an indirect value of 0.373 and a direct value of 0.282. Therefore, the fourth hypothesis that states there is an influence of business networks on company competitiveness and innovation as an intervening variable is accepted.



Source: Research Data

**Figure 2. Structural Model**

## DISCUSSION

This study investigates the impact of business networks and innovation on business competitiveness using the Indonesian handicraft industry as an example. The results show that all the hypotheses of this study support the model we proposed based on the literature and previous studies. The results of the first hypothesis prove that business networks influence innovation. This means that strong business networks encourage entrepreneurs to innovate and



keep their businesses growing. The results of this study are consistent with the findings of Chen & Wang (2008) who analyzed social networks and their impact on new business innovations. They found that internal and external social networks had a small positive impact on new firms' ability to innovate. Xu, Lin, and Lin (2008) also found that firms can promote innovation by expanding their networks, as more corporate networks are associated with better innovation capabilities.

The results of the second hypothesis also provide evidence that there is an impact on the competitiveness of Indonesia's handicraft industry among business networks. In other words, you need a good corporate network to improve your competitiveness. This finding is consistent with that of Colleen (2014). This study provides a more detailed explanation of the role of social networks and their impact on business outcomes. Jack, et al. (2010) argued that entrepreneurial networks are important and useful for many companies.

The third hypothesis also provides evidence that innovation can improve the competitiveness of Indonesia's handicraft industry. Following the theory of Chursin & Vlasov (2017), they state that innovation is the basis for achieving competitiveness. The results of this study are consistent with those of Kuratko and Howard Frederick (2016), who state that factors based on economic drivers, economic efficiency, and innovation are the drivers of competitiveness. Chursin & Vlasov (2017) state that innovation is the basis of competitiveness. The greater a company's ability to innovate, the more competitive it will be. This means that innovation guarantees increased competitiveness for companies and organizations.

The results of testing the fourth hypothesis of business networking have a significant positional influence on competitiveness through innovation. This means that the innovation variable can be categorized as a mediator between business networking against competitiveness. Companies should focus on building their business networking to drive innovation capabilities. These results confirm that a strategic step to encourage the improvement of innovation capabilities requires strengthening the ability to build business networking that leads to competitive advantage. This result is reinforced by the findings of Lechner & Dowling (2003), that innovation mediates the influence of business networking on business competitiveness. In line with Lin & Lin (2016) forming a network can share knowledge, accelerate innovation, reduce transaction costs, better reputation, and the creation of new market opportunities, thereby strengthening the Company's competitiveness.

## **Conclusion and Suggestion**

This study empirically investigated the relationship between business networks and innovation and competitiveness in the Indonesian handicraft industry. The results show that business networks and innovation have a significant impact on competitiveness. Innovation has the greatest impact on a company's competitiveness. Rather than the direct effect of business networks on business competitiveness, the indirect effect of business networks through innovation has the greatest impact on business competitiveness. Therefore, innovation can mediate the influence of business networks on a firm's competitiveness. We recommend improving innovation through product variations, improving production processes, improving a company's network capabilities, etc. Expanding our business network of customers, suppliers, and competitors.

This study enriches the existing scientific literature and further examines and investigates the relationship between these variables. Practically, the results of this study can provide input to



owners or managers to pay attention to business networks that affect business innovation and competitiveness. Furthermore, the study suggests that SMEs strive to strengthen mutually beneficial partnerships between SMEs or between SMEs and large entrepreneurs to prevent the negative impact of poor business networks and competitiveness, get partners online and build relationships with other entrepreneurs, and Provide opportunities for customers to provide input and receive feedback on new product formulations and designs. With suppliers who maintain commitment and mutual trust. Benchmark your competitors in the development and manufacture of innovative products. Small and medium-sized enterprises can form business groups that facilitate partnerships with other parties, allowing small and medium-sized businesses to control distribution and build larger, more profitable business models. SMEs need to maintain customer loyalty and satisfaction, including creating communities where customers can encourage repeat purchases and participate in promoting their products. Create a network pattern in the form of subcontracting networks and cluster development. In this way, small and medium-sized businesses gain the necessary competitive advantage.

This study provides new insights into the importance of SMEs building business networks to increase their competitiveness through innovation capabilities. Small and medium enterprises that can expand their business networks through communication networks with customers, suppliers, and competitors, will get creative ideas to innovate in the production process, develop product variations, and apply new methods in product marketing. This will be very useful to increase business competitiveness.

The limitation of this study is that, first, this study only uses a sample of SMEs in the craft sector, limiting its generalization ability to SMEs as a whole. Second, the study relied on data collected by distributing questionnaires to respondents. Respondents' answers may not reflect actual circumstances. We encourage future researchers to consider using other methods to collect data. Third, this study only focuses on business networking variables that influence innovation and its impact on competitiveness and does not discuss other variables that may play a greater role in improving competitiveness. Therefore, researchers suggest that further research is needed.

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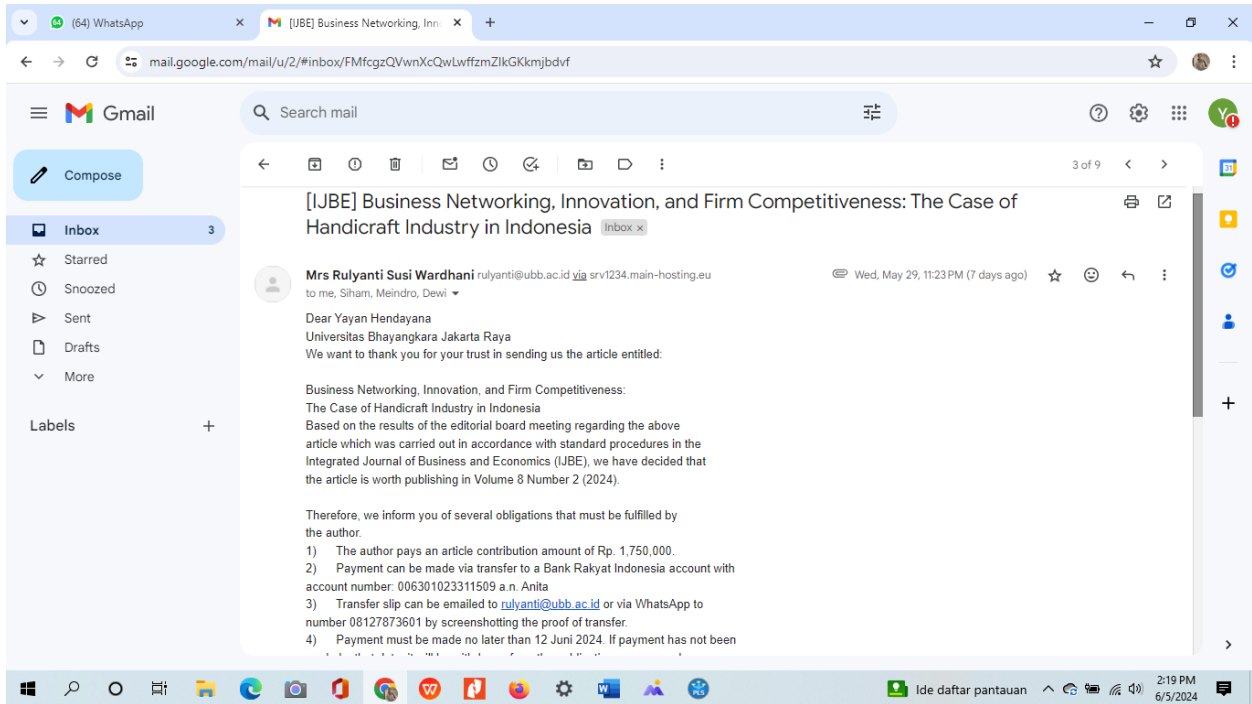
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## 6. Bukti Diterima Untuk Publish



The screenshot shows a Gmail interface with an email from Mrs Rulyanti Susi Wardhani. The email subject is "[IJBE] Business Networking, Innovation, and Firm Competitiveness: The Case of Handicraft Industry in Indonesia". The sender is Mrs Rulyanti Susi Wardhani (rulyanti@ubb.ac.id) and the recipient is Yayan Hendayana. The email content includes a thank you message and a list of obligations for the author.

**[IJBE] Business Networking, Innovation, and Firm Competitiveness: The Case of Handicraft Industry in Indonesia**

**Mrs Rulyanti Susi Wardhani** rulyanti@ubb.ac.id via srv1234.main-hosting.eu  
to me, Sihani, Meindro, Dewi

Wed, May 29, 11:23 PM (7 days ago)

Dear Yayan Hendayana  
Universitas Bhayangkara Jakarta Raya  
We want to thank you for your trust in sending us the article entitled:

Business Networking, Innovation, and Firm Competitiveness:  
The Case of Handicraft Industry in Indonesia

Based on the results of the editorial board meeting regarding the above article which was carried out in accordance with standard procedures in the Integrated Journal of Business and Economics (IJBE), we have decided that the article is worth publishing in Volume 8 Number 2 (2024).

Therefore, we inform you of several obligations that must be fulfilled by the author.

- 1) The author pays an article contribution amount of Rp. 1,750,000.
- 2) Payment can be made via transfer to a Bank Rakyat Indonesia account with account number: 006301023311509 a.n. Anita
- 3) Transfer slip can be emailed to [rulyanti@ubb.ac.id](mailto:rulyanti@ubb.ac.id) or via WhatsApp to number 08127873601 by screenshotting the proof of transfer.
- 4) Payment must be made no later than 12 Juni 2024. If payment has not been

## 7. Bukti LOA



### LETTER OF ACCEPTANCE

10/IJBE/2024

Bangka, May 29<sup>th</sup> 2024

Dear Yayan Hendayana

Universitas Bhayangkara Jakarta Raya

We want to thank you for your trust in sending us the article entitled:

**Business Networking, Innovation, and Firm Competitiveness:**

**The Case of Handicraft Industry in Indonesia**

Based on the results of the editorial board meeting regarding the above article which was carried out in accordance with standard procedures in the Integrated Journal of Business and Economics (IJBE), we have decided that the article is worth publishing in **Volume 8 Number 2 (2024)**.

Thank you for your contribution, the technical issues about the publication will be informed later.

Editor in Chief  
Integrated Journal of Business and Economics (IJBE)



Dr. Rullyanti Suci Wardhani, S.E., M.Si.

8. Bukti Invoice



**INVOICE**  
**09/IJBE/2024**

Bangka, May 29<sup>th</sup> 2024

Dear Yayan Hendayana

Universitas Bhayangkara Jakarta Raya

We want to thank you for your trust in sending us the article entitled:

**Business Networking, Innovation, and Firm Competitiveness:  
The Case of Handicraft Industry in Indonesia**

Based on the results of the editorial board meeting regarding the above article which was carried out in accordance with standard procedures in the Integrated Journal of Business and Economics (IJBE), we have decided that the article is worth publishing in Volume 8 Number 2 (2024).

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- 4) Payment must be made no later than 12 Juni 2024. If payment has not been made by that date, it will be withdrawn from the publication process and replaced by another article.

That is the information regarding the IJBE journal payment contribution, we thank you for your cooperation and participation.

Editor in Chief  
Integrated Journal of Business and Economics (IJBE)

Dr. Rulyanti Suci Wardhani, S.E., M.Si.

## 9. Bukti Pembayaran



### Transaksi Berhasil

03 Juni 2024, 10:45:26 WIB

Total Transaksi  
**Rp1.750.000**

No. Ref 692370019878

**Sumber Dana**  
**YH** YAYAN HENDAYANA  
BANK BRI  
0814 \*\*\*\* \* 535

**Tujuan**  
**A** ANITA  
BANK BRI  
0063 0102 3311 509

Jenis Transaksi **Transfer Bank BRI**

Catatan -

Nominal **Rp1.750.000**

Biaya Admin **Rp0**

**INFORMASI:**  
Biaya Termasuk PPN (Apabila Dikenakan/Apabila Ada)  
PT. Bank Rakyat Indonesia (Persero) Tbk.  
Kantor Pusat BRI - Jakarta Pusat  
NPWP : 01.001.608.7-093.000

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Terdaftar dan diawasi oleh Otoritas Jasa Keuangan

## 10. Bukti Sudah Publish

The screenshot shows the homepage of the Integrated Journal of Business and Economics (IJBE). The header includes the journal's title, ISSN (2549-3280), and P-ISSN (2549-5933). Navigation links for Home, About, User Home, Search, Current, and Archives are visible. The main content area features the journal's title, a brief description, and contact information. A sidebar on the right lists various journal-related services such as Editorial Team, Reviewers, Focus and Scope, and Open Access Policy. The footer shows the current date and time as 10:10 AM on 7/9/2024.

The screenshot displays the Table of Contents for Vol 8, No 2 (2024) of the Integrated Journal of Business and Economics. The page features a search bar, a list of articles with their titles, authors, and page numbers, and a sidebar with navigation options. The table of contents includes:

Article Title	Author(s)	Page Range
Business Networking, Innovation, and Firm Competitiveness: The Case of Handicraft Industry in Indonesia	Yayan Hendayana, Sihom El-Khafaji, Meindra Waskita, Dewi Puspantiygas Paeni	129-144
Reviving the Overlooked: Strategies for Reclaiming the Forgotten Part of Marketing	Boqer Khudair Al-Hadrawi, Meenakshi Kaushik, Renlati Renlati	145-159
Corporate Social Responsibility Disclosure During Pandemic: What Does the Female Supervisory Board Do?	Arif Budi Satrio	160-171

The sidebar on the right includes a 'STATISTIK' section with a 'View My Stats' link, a 'JOURNAL CONTENT' section with a search bar, and a 'KEYWORDS' section listing various topics like Accountability, Organizational Commitment, and COVID-19.

LINK DOKUMEN PUBLIKASI :

<https://ojs.ijbe-research.com/index.php/IJBE/article/view/924>



