# Social Media Networking and Knowledge Sharing in Increasing Innovation and MSME's Growth: Based on the Theory of Communication Visibility



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Lyna Latifah<sup>a,1</sup>\*, Nurdian Susilowati<sup>b,2</sup>, M. Noor Ardiansah<sup>c,3</sup>, Tusyanah<sup>d,4</sup>, M. Syukri Abdullah<sup>e,5\*</sup>

<sup>a,b,d</sup> Economic Education Department, Universitas Negeri Semarang, Taman Siswa Street, Gunung Pati, Semarang 50229, Indonesia

<sup>c</sup> Accounting Department, Politeknik Negeri Semarang, Prof. H. Soedarto, S.H. Street, Tembalang, Semarang 50275, Indonesia

<sup>e</sup> Faculty of Business and Management, Universiti Teknologi MARA (UiTM), Ilmu Street 1/1, 40450 Shah Alam, Selangor, Malaysia

<sup>1</sup> lyna.latifah@mail.unnes.ac.id\*; <sup>2</sup>nurdiansusilowati@mail.unnes.ac.id; <sup>3</sup>m.noorardiansah@gmail.com;

<sup>4</sup>tusyanah@mail.unnes.ac.id, <sup>5</sup>syukriabdullah@uitm.edu.my

\* corresponding author

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#### ABSTRACT

The purpose of this study is to examine the direct effect of social media networking, knowledge sharing, and innovation on MSME's growth. This study also examines the role of knowledge sharing and innovation in mediating the influence of social media networking on the MSME's growth. This research is survey research. Respondents are MSMEs from young entrepreneurs assisted by universities. Respondents who participated in this study were 467 people, but only 421 could be used. Data analysis techniques in this study using PLS-SEM. The results show that social media networking, knowledge sharing, and innovation affect MSME's growth. Knowledge sharing and innovation play a part in mediating the influence of social media networking on MSME's growth. This study examines the role of knowledge sharing and innovation in mediating social media networking on MSME's growth.

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# 1. Introduction

Globalization and the industrial era 4.0 are factors that force Micro, Small, and Medium Enterprises (MSMEs) to design new ways of doing business. To respond to market changes and demands, MSMEs need to develop agility or respond quickly to market changes. Thus, MSMEs need the acumen to collect and integrate information regarding customer needs (Rafi et al., 2021). The utilization of information technology can be a strategic choice in the face of increasingly rapid environmental changes. Adopting information and communication technology (ICT) can benefit MSMEs in increasing information and knowledge, reducing transaction costs, and increasing transaction speed and reliability (Ongori & Migiro, 2010).

MSMEs in developing countries experience obstacles in accessing accurate and timely information. Due to the limitations of MSMEs in financial resources to adopt communication information technology and the lack of skilled human resources, the MSME capital to operate new digital technologies in their teams (OECD, 2019; Oyewobi et al., 2021). Despite having limitations in adopting information technology, MSMEs in developing countries have used social media networks for their business interests (Pratono, 2018). Social media networks are a form of ICT that is easy to use and free (Muntinga et al., 2011).

Social media networks have become a favorite platform for MSMEs because of their ability to create value and increase competitiveness in business (Oyewobi et al., 2020). Previous research has found a positive influence on the use of social media and business performance. Performance is often described as "growth" or success, which is often used as a synonym in research in small companies (Komppula & Reijonen, 2006). The text "the theory of the growth of the firm" states that business growth depends on the application of entrepreneurial knowledge and how to manage knowledge resources (Macpherson & Holt, 2007). However, social media networking does not necessarily encourage innovation because it is an attitude to seek opportunities for innovative actions. It is not behavior. Therefore, this strategy requires activities that enable companies to capture and utilize knowledge effectively. An organization's ability to use knowledge effectively depends on how human resources create, share, and use it (Ipe, 2003). It isn't easy to turn the knowledge within a person into organizational learning. Knowledge utilization will occur if someone shares knowledge with others in the organization. The problem that comes up is how to manage knowledge in MSME organizations.

The reason for doing this research is because social media has become a lifestyle for young people in Indonesia, but whether social media has been used by young entrepreneurs for their business facilities needs further research. Then, the questions are written as follows: how do MSMEs use social media networking in their business? Can social media networking for MSMEs in business encourage increased innovation and business growth? Is the use of social media networking used for knowledge sharing for MSMEs so that they can increase innovation and growth?

Social media networking here plays a role in facilitating information sharing obtaining information, and means of communication among organizations, customers, and suppliers (Tajvidi & Karami, 2021a). The use of social media for business has also been shown to increase sales, reduce costs, improve customer service, reach, brand image and improve business-to-business relationships. Social media also helps MSMEs to do business anytime and anywhere. Some studies have also found that MSMEs use social media for marketing, communication, sales, advertising, innovation, problem-solving, customer service, and internal and external collaboration (Ainin et al., 2015). Based on the results of research by Amalia & Melati (2021), it is stated that MSME owners need to take advantage of the potential of social media to advertise their MSME goods.

Previous studies have shown that social media directly affects performance (Ainin et al., 2015; Parveen et al., 2015; Tajvidi & Karami, 2021). In addition, previous research also provides empirical evidence of the influence of social media on innovation (Papa et al., 2018). The results of other studies

also show that social media affects knowledge sharing (Hartono & Sheng, 2016). The majority of research focuses more on the adoption of digital technology, especially social media, to improve the performance of MSMEs (Ainin et al., 2015; AlSharji et al., 2018; Ebrahimi, 2019; Odoom et al., 2017), but skips the attention on the value of social networking through social media for the importance of knowledge sharing in generating innovation and growth. In contrast to electronic media such as email; then, social media such as Facebook, LinkedIn, Twitter, and WhatsApp are not only used for social interaction. Still, it can also be used as advertising, selling, and marketing media for businesses (Tiwasing, 2021).

This study fills this gap by examining the influence of social media networking on MSME's growth, both directly and indirectly mediated by innovation and knowledge sharing. The Theory of Communication Visibility states that invisible communication between people in the organization can actually be seen by third parties, where those who see it can increase their meta-knowledge, especially who knows what and who knows. This theory was first used in Leonardi's research (2014) in the context of social media in the form of qualitative research. This research contributes to the development of Theory of Communication Visibility by providing insight into the role of social media networking in facilitating knowledge sharing to increase innovation and MSME's growth through a quantitative research approach.

MSMEs grow by maintaining flexibility and innovation (Salojärvi et al., 2005). Three main things drive innovation: knowledge, skills, and competencies (Gubbins & Dooley, 2014). The key factor for creating innovation is how the knowledge set can be configured. It is related to access and knowledge collection rather than integrating knowledge (Wang & Wang, 2012a). Social media offers various features, including openness, two-way communication, and open feedback(Desrtriyanto et al., 2022). Social media platforms can be used for MSMEs to facilitate knowledge, both explicit and tacit knowledge. Based on the knowledge management literature, explicit knowledge sharing and tacit knowledge will affect innovation (Wang & Wang, 2012). The innovation process is an interactive system and network that includes organizational boundaries to draw multiple sources of knowledge, experience, and capabilities. So that the locus of innovation and knowledge circulation lies in a dynamic business network (Gubbins & Dooley, 2014) which can be obtained through social media networking. Innovation has been empirically proven to be a major determinant of firm growth (Harms et al., 2010).

Psychological theory explains that the macro-actions of the organization may actually be a disguise of the micro-behavior of the individual. Thus individual behavioral processes can influence or mediate organizational actions (Staw, 1991). The argument explains the relationship between knowledge and organization. Beginning with two different types of knowledge, explicit and tacid knowledge. Innovation will occur when the knowledge that exists in individuals becomes organizational knowledge. Therefore, it is very important to look at the nature of the relationship between knowledge and organizational learning and how to integrate learning activities at the micro level to the organizational/ macro level (Lam, 2000).

## 2. Literature Review

## **Theory of Communication Visibility**

Communication Visibility theory argues that third parties can see invisible communication between people in the organization. They have explored their meta-knowledge, especially who knows what and knows who (Leonardi, 2014). Transparency of messages illustrates how a person can find out the content written and expressed by his colleagues by exchanging social media information. Social media makes communication more visible than email, ERP, or intranets. Network invisibility is meant to be the degree to which third-party observers are aware of the existence and monitor the activities of

others through observing their interactions on social media. Communication visibility allows corporate social networks to know who knows what and who through two interrelated mechanisms: message transparency and network transparency. Looking at the contents of other people's messages uploaded on social media will help third-party observers conclude colleagues' knowledge. Looking at the structure of co-workers' communication networks can allow third parties to make inferences about those who regularly communicate with co-workers. Further, the emerging theory says that the acquired meta knowledge will result in more innovative products and services and less knowledge duplication when employees learn to work in new ways. Learning from the experiences of others is also more effective in combining existing ideas into new ideas (Engelbrecht et al., 2019; Yang et al., 2021).

# **Hypothesis Development**

Social media networking is a digital media used by entrepreneurs and SMEs to interact with suppliers, customers, and other business partners via Instagram, telegram, websites and weblogs, Facebook, Twitter, and WhatsApp (Ebrahimi et al., 2019). SMN is a web-based technology designed to turn communication into dialogue (Scuotto et al., 2017). According to (Hutchings, 2012), organizations can use social networking media as a medium to promote products, sell and increase knowledge sharing within the organization. Social interactions among entrepreneurs allow them to create, share and exchange information and knowledge (Zhang et al., 2015). Social media networking offers a media platform to share knowledge and is recognized as part of virtual collaboration in society (Scuotto et al., 2017). Social media does not automatically create value for the organization, but it requires active communication from fellow organization members. Social media networking is a webbased technology designed to turn communication into dialogue (Scuotto et al., 2017). Communication can be established effectively through this social media platform without meeting physically (Tajvidi & Karami, 2021). The use of social media networking for MSMEs can enable the exchange of information both from human resources within MSMEs and their communities among MSMEs in the same cluster. MSMEs will tend to form their virtual communities to achieve common goals. Vital goals become the driving force for users to create value for the organization (Scuotto et al., 2017). Social media networking also offers a place to share knowledge and attract talented people to collaborate virtually. Several researchers have proven the influence of social networking media on knowledge sharing, including (Kwayu et al., 2021).

MSMEs can take advantage of this social media networking to increase the value in their business related to brand value, sales growth, e-commerce, innovation, and product development (Tajvidi & Karami, 2021). In the context of innovation, the current innovation process requires an open innovation approach where R&D is developed through knowledge and resources that come from the external environment (Scuotto et al., 2017). Some companies even involve consumers in the development of their product innovations. Social networking media plays a role in facilitating MSMEs to innovate through their ability to simplify the flow of knowledge and facilitate coordination of activities (Papa et al., 2018). Scuotto et al (2017) and Papa et al (2018) provide empirical evidence of the positive influence of social media networking in increasing innovation.

The use of social networking media also allows individuals to develop social relationships with anyone to share or interact with (Campbell et al., 2014). The adoption of social media creates social networks among entrepreneurs, customers, and suppliers (Tajvidi & Karami, 2021). Interaction in business networks allows companies to achieve superior sustainable performance (Pratono, 2018). Other benefits of social media networking for entrepreneurs include helping MSMEs achieve organizational goals, including marketing, advertising, branding, customer service, and problemsolving. According to Quinton & Wilson (2016), if MSME owners become members of a social media business network, they will have benefits such as a trusted business network environment, business involvement, collaborative problem solving, and improving business performance. The majority of

previous studies found a positive effect of social networking media in improving performance, such as Ebrahimi et al (2019); Oyewobi et al (2021); Tajvidi & Karami (2021). Thus the hypothesis proposed is:

H1a: Social media network has a positive effect on knowledge sharing

H1b: Social media network has a positive effect on innovation

H1c: Social media network has a positive effect on MSME's growth

The success of an organization in today's knowledge-based economy depends on how well knowledge can be shared between individuals, teams, or units. Knowledge-sharing behavior is believed to contribute to generating various organizational capabilities such as innovation to improve performance (Wang & Wang, 2012a). This is because innovation does not occur suddenly but through a process of idea journey that passes through several phases. There are 4 phases of the idea journey, according to (Perry-Smith & Niversity, 2017), which include idea generation, idea elaboration, idea championing, and idea implementation. When people work in a virtual team, they can share knowledge, use the knowledge, and develop their knowledge to strengthen team innovation (Hung et al., 2021). The results of research by Wang & Wang (2012) and research by Huang et al (2021) conclude that knowledge sharing has a positive effect on innovation.

A person can learn not only from direct experience but also through the experiences of others. Interaction with others causes knowledge to be collected and transferred to colleagues through feedback, explanations, assistance, or suggestions. Knowledge exchange among individuals will unite knowledge sources and manipulate them into new knowledge structures (Wang & Wang, 2012). This activity correlates with employee competencies that will contribute to organizational performance. According to (Van den Hooff & Ridder, 2004), anyone who distributes information from different sources to others will increase efficiency and effectiveness. Knowledge sharing activities like this will improve the recipient's knowledge, skills, and experience in problem-solving and can quickly respond to environmental changes. Thus, the knowledge-sharing process leads to better performance by improving the organization's business processes, products, and services (Wang & Wang, 2012). The results of the study by Law & Ngai (2008); research by Du et al. (2007), and Wang & Wang (2012). The results of Law & Ngai's (2008) research and Du et al.'s (2007) research found that knowledge sharing activities will result in better performance.

H2a: Knowledge sharing has a positive effect on innovation H2b: Knowledge sharing has a positive effect on growth

Innovation has been recognized as a key factor for the company's growth. The results of innovations launched in the market will make the company superior because the company cannot imitate or substitute products. The advantages of this innovation will contribute to increasing sales volume, namely growth (Harms et al., 2010). The innovation process refers to events when people interact with others to develop and implement innovative ideas in an institutional context (Gronum et al., 2012). Anon-Higon et al. (2015) and Hervas-Oliver et al. (2014) state that innovation is a determinant of the success of MSME financial performance. The results of Hall's research (2011) conclude that product and process innovation does not always positively affect sales growth and productivity. Meanwhile, Jaumandreu and Meiresse (2016) state that process innovation can reduce production costs, while product innovation can increase production costs. The hypothesis that is built in this research is:

H3: Innovation has a positive effect on growth

Social media platforms provide a modern way for MSMEs to excel in the competition. Social media leads to knowledge competencies that will improve performance directly or indirectly through the innovation process (Oyewobi et al., 2021). SMEs' use of social media networks can facilitate the innovation process because they capture customer feedback. Customers can be involved in the innovation process by generating new ideas and designing and testing new services. It will result in lower costs and reduced risk to expand the innovation process. The results of this innovation process can increase business growth (Palacios-Marqués et al., 2016). Soto-Acosta et al (2016) shows the influence of information technology, knowledge management, and company performance and empirically proves the direct or indirect influence between information technology and performance. Thus, innovation can act as a mediator for social media networking and MSME's growth.

H4: Social media network has a positive effect on MSME's growth mediated by innovation

There is no denying that social media is a platform for empowering individuals in organizations to collaborate and understand the organization's goals, motives, and operations. Social media networks enable MSMEs to build businesses, either business to business (B2B) or business to consumer (B2C), by managing valuable knowledge to expand their entrepreneurial, economic and creative activities (Crammond et al., 2018). MSMEs can use social media networking as a powerful tool to communicate, promote brands and products, and increase knowledge-sharing activities (Kwayu et al., 2021). Hamoud (2016) states that knowledge sharing through social media impacts strategic organizational decisions. The company's internal knowledge sharing is crucial for business efficiency and effectiveness, while external knowledge sharing is essential for building a successful MSME business. Social media networking is critical because it can seek information, communicate, and share knowledge among MSMEs to obtain resources and the best way to run a business (Crammond et al., 2018) The developed hypothesis is:

H5: Social media network has a positive effect on MSME's growth mediated by knowledge sharing

Knowledge sharing is when knowledge sources are encoded and provided, and then the knowledge is received, decoded, and internalized (Hung et al., 2021). According to (Hendriks, 1999), the important role of knowledge sharing is its potential in connecting individuals and organizations in shifting knowledge from the individual level to the organizational level. Individuals who have a variety of knowledge, if synergized, will become innovative ideas. The innovation ability of MSMEs will be determined by the ability of employees to share and combine knowledge (Soto-Acosta, et al., 2015). The ability of employees to capture knowledge in knowledge sharing is the key to the success of creating new knowledge. Without sharing knowledge, employees will find it difficult to transform knowledge into innovation value (Hung et al., 2021). The developed hypothesis is:

H6: Knowledge sharing has a positive effect on MSME's growth mediated by innovation

# **3. Research Method**

This research is quantitative research conducted through a survey. Respondents in this study were young entrepreneurs included in the business incubators of several universities in Central Java, Indonesia. Data was collected through a questionnaire distributed through the WA group of young entrepreneurs in Central Java. The data collected was 467 respondents, but 5 data did not fit into the criteria, and there were 41 incomplete data, so the data that could be processed was 421 data. Data analysis techniques using descriptive statistics and SEM-PLS using *WarpPLS 6.0 software*.

#### Measurement

Growth is the average sales growth of the last MSMEs (Komppula & Reijonen, 2006). Several growth indicators are changes in sales turnover, the number of employees, and market share. The use

of social media is the intensity of the use of social media networks for business activities (Pratono, 2018). Indicators of the use of social media are connecting with other companies/partners through social media, maintaining social relations with company partners through social media, exchanging information with partner companies through social media with the same content, and partners in providing advice and information for decision making connected with social media.

Knowledge sharing is the knowledge that can be shared between individuals, teams, or units. (Kwahk & Park, 2016). Knowledge sharing indicators are sharing knowledge through social media, spending time involved in knowledge sharing activities on social media, actively sharing knowledge with others through social media, interacting with many people to discuss difficulties or difficult themes through social media, and participating with other people. Volunteer on different/varied discussions via social media. Innovation is the creation or modification of existing products, processes, or marketing. The measurement of innovation was adopted from the research of Gronum et al (2012) which asked respondents about a product, process, and marketing innovation.

# 4. Results and Discussion

Table 1. Over	view of Respondents	
Category	Total	Percentage
Gender:		
Male	188	44,6%
Female	233	55,4%
Type of Business:		
Culinary	130	30,9%
Service	98	23,2%
Trading	74	17,6%
Fashion	80	19,1%
Agriculture and Animal Husbandry	16	3,8%
Craft	23	5,5%

Respondents in this study are young entrepreneurs included in business incubators at universities in Central Java. The general description of research respondents is presented in table I.

Source: Processed Data, 2021

Based on table I, it can be seen that young female entrepreneurs are higher than men, namely 55.4%. The types of young entrepreneurs' businesses are divided into six fields: culinary, services, trade, fashion, agriculture, animal husbandry, and craft. The results of descriptive data processing show that the culinary business sector is a favorite business; it is proven that 30.9% of respondents are engaged in the culinary field. Agriculture and animal husbandry are less attractive; it can be seen from Table I that only 3.8% of respondents are engaged in this field.

Variable	Minimum	Maximum	Average	Standard Deviation
Sosial media networking	4	20	13,85	3,52
Knowledge sharing	5	25	17,80	4,48
Innovation	5	25	15,32	3,97
Growth	3	15	6,95	2,26

Table 2. Descriptive Statistics of Variables

Source: Processed Data, 2021

The results of descriptive statistical processing show that based on the tabulation results, the social media networking variable has an average value of 13.85, which is in the good category. The use of knowledge sharing in business has an average of 17.80 in the high category; innovation has an average of 15.32, and growth has an average of 6.95 in the moderate category.

	Tabel 3. Factor Loading		
No	Question	Code	Loading faktor
1.	How many business relationships are established through social media?	SMN1	0.810
2.	How often does the company communicate with business partners through social media?	SMN2	0.870
3.	How often does the company exchange information with relations about product development through social media? (for example: customers provide input about products through social media, suppliers provide input through social media)?	SMN3	0.861
4.	How often do company relationships contribute to business decision making through social media? (example: the decision to launch a new product, the decision to open a branch, the decision to delete a product, etc.)?	SMN4	0.772
6.	How often do you share knowledge through social media?	KS1	0.821
7.	How often do you spend time engaging in knowledge sharing activities on social media?	KS2	0.856
8.	How often do you discuss with many people on social media about the business difficulties that you are experiencing?	KS3	0.795
9.	How often do you discuss anything on social media?	KS4	0.862
	How often do you get new knowledge from the results of discussions through social media?	KS5	0.832
10.	How often does the company innovation new products to customers?	INO1	0.680
11.	How often does the company innovation new methods of product processing to employees?	INO2	0.767
12.	How often does the company make innovation in organizational? (for example, bookkeeping, HR management processes, organizational structure changes, vision and mission changes)	INO3	0.742
13.	How often does the company innovation in product packaging design?	INO4	0.756
14.	How often does the company make innovation in marketing	INO5	0.671
15.	Increase in sales from last year in percent?	GROWTH1	0.790
16	How many additional employees from last year?	GROWTH2	0.770
17	How much did your company's market share increase?	GROWTH3	0.749

## **Hypothesis Test**

The data processing technique in this study uses structural equation modeling (PLS-SEM) because it can combine component analysis, path analysis, and a set of regression to estimate the standardized regression coefficients of the path model as well as the loading factor of the measurement items (Ratasuk & Charoensukmongkol, 2020). PLS-SEM is also more suitable for research that aims to predict. The software used for PLS-SEM uses WarpPLS version 6.0.

Before testing the hypothesis, a series of estimation model measurements are carried out, including convergent validity and discriminant validity. Convergent validity testing using Cronbach Alpha and Composite reliability score. The rule of the thumb for the composite reliability score according to Nunnally is 0.7, while Churchill suggests Cronbach's alpha 0.6 is acceptable (Rahimnia & Hassanzadeh, 2013). The convergent validity results of all acceptable variables are shown in table 2, where the composite reliability score of each variable is above 8.0, while the results of Cronbach's alpha

are above 0.6. Meanwhile, the average variance extracted (AVE) is more than 0.5 according to the specified rules.

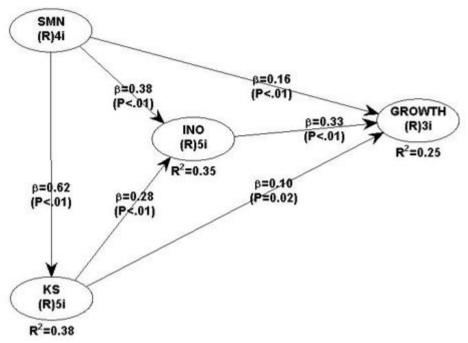


Figure 1. Path Analysis Test Results

Note: SMN: Social Media Networking; KS: Knowledge Sharing; INO: Innovation; GROWTH: MSME's Growth. Model Fit and quality indices: Average path coefficient (APC)=0.313, P<0.001;Average R-squared (ARS)=0.330, P<0.001; Average adjusted R-squared (AARS)=0.326, P<0.001;Average block VIF (AVIF)=1.583, acceptable if  $\leq$  5, ideally  $\leq$  3.3;Average full collinearity VIF (AFVIF)=1.645, acceptable if  $\leq$  5, ideally  $\leq$  3.3;Tenenhaus GoF (GoF)=0.454, small >= 0.1, medium >= 0.25, large >= 0.36

Table 4. Latent Coefficient Variable					
		CR (Composite	Cronbach	AVE (Average	Full
Variable	$\mathbb{R}^2$	reliability	Alpha	variances	collinearity
		coefficients)	_	extracted)	VIFs
SMN		0.898	0.847	0.687	1.873
KS	0.382	0.919	0.890	0.695	1.720
INO	0.353	0.846	0.772	0.525	1.665
GROWTH	0.254	0.813	0.656	0.592	1.323
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Note: SMN: Social Media Networking; KS: Knowledge Sharing; INO: Innovation; GROWTH: MSME's Growth

Table 5. Hypothesis test results

Hipotesis	$\beta$ and p value	Result		
H1a: SMN→ KS	β: 0.618, p < 0.001	H1a: supported		
H1b: SMN→INO	β: 0.381, p <0.001	H1b: supported		
H1c: SMN $\rightarrow$ MSMEs Growth	$\beta: 0.164$ , p < $0.001$	H1c: supported		
H2a: KS→INO	β: 0.285, p <0.001	H2a: supported		
H2b: KS $\rightarrow$ MSMEs Growth	β: 0.098, p: 0.023	H2b: supported		
H3: INO $\rightarrow$ MSMEs Growth	$\beta : 0.330$ , p < 0.001	H3: supported		
H4: SMN $\rightarrow$ INO $\rightarrow$ MSMEs Growth	β: 0.074, p <0.001	H4: supported		
H5: SMN $\rightarrow$ KS $\rightarrow$ MSMEs Growth	β : 0.094, p <0.001	H5: supported		
H6: KS $\rightarrow$ INO $\rightarrow$ MSMEs Growth	β : 0.034, p <0.001	H6: supported		

#### **Direct Effect Result**

The results of the direct effect test are shown in Figure 1 and Table 3. The H1, H2, and H3 tests show that the path coefficient values (direct effects) are supported. Seen in Figure 1 and Table 4 the effect SMN $\rightarrow$ KS (H1a), SMN $\rightarrow$ INO (H1b), SMN $\rightarrow$ MSME's growth (H1c), KS $\rightarrow$ INO(H2a), KS $\rightarrow$ MSME's growth (H2b), INO $\rightarrow$ MSME's growth (H3) is significant, with a value of beta ( $\beta$ ) as big as 0.618, 0.381, 0.164, 0.285, 0.098 and 0.330 respectively, and significant on p <0.001, p <0.001, p <0.001, p <0.001, p <0.023. It can be concluded that H1a, H1b, H1c, H2a, H2b, and H2c are supported.

#### **Indirect Effect Result**

The indirect effect in this study examines the mediating role of innovation and knowledge sharing in the influence of social media networking on MSME's growth which is reflected in H4 and H5. This study also examines the indirect effect of knowledge sharing on MSME's growth through innovation in H6. The test results in Figure 1 and Table 4 show the effect between SMN $\rightarrow$ INO  $\rightarrow$  MSMEs Growth (H4) as  $\beta$ : 0.074, p <0.001. Meanwhile, the influence between SMN $\rightarrow$ KS  $\rightarrow$  MSMEs Growth  $\beta$ : 0.094, p <0.001. Hypothesis 5 examines the effect of KS $\rightarrow$ INO  $\rightarrow$  MSMEs Growth  $\beta$ : 0.034, p <0.001. The three hypotheses that test this indirect effect are significant and supported at a 95% confidence level.

#### Discussion

This study empirically proves the influence of social media networking on knowledge sharing, innovation, and performance. Using social media networking can support knowledge sharing between employees and business to business. Organizations can achieve the best performance if they can manage information technology well to encourage and generate creative ideas for employees, so that knowledge sharing is built. It shows that the successful implementation of technology is not due to formal planning (Carcary et al., 2016) but because of creative ideas for the practice of using social media networking. Emerging social networking media is key to an organization's business strategy (Kwayu et al., 2021c).

Social media networking used by MSMEs affects business innovation. The findings support previous research (Ahmad, 2014; Roberts et al., 2016); social media networking enhances business innovation as companies gain access to a wider range of new markets and innovative technical solutions that can be built. Companies need to acquire new skills, procedures, and competencies to innovate products, processes, organization, and marketing. For example, package and display products that attract customers sales promotions using the latest e-commerce or digital marketing. Therefore, it is appropriate for companies to make social media networking a part of their business innovation strategy (Ainin, Parveen, Moghavvemi, Jaafar, & Shuib, 2015).

Another interesting finding is that social media networking also affects MSME's growth. The results have similarities with the finding of (Gupta & Pandit, 2013; Pratono, 2018; Tajvidi & Karami, 2021b); the use of social media has a positive effect on the performance of MSMEs. The use of social media for ordering and marketing activities has a positive and significant effect on company performance. The study results have similarities with the findings Cervellon & Galipienzo (2015) who found positive effects of social media to increase business success and optimal performance. Furthermore, knowledge sharing that appears in a company affects innovation. Knowledge sharing is the process of communicating, receiving feedback, and internalizing it (Eidizadeh et al., 2017; Ritala et al., 2015). The important role of knowledge sharing is its potential in connecting individuals and organizations in shifting knowledge from the individual level to the organizational level to bring up creative and innovative ideas in developing business. The synergy of diverse individual knowledge can also result in business innovation.

Knowledge sharing also has a positive effect on growth. Employees in a company learn from the experience they have directly but can learn from the experience of their colleagues. Such

communication and interaction can increase their knowledge to create a good performance. They can also contribute to improving the company's performance (Castaneda & Cuellar, 2020; Mirzaee & Ghaffari, 2018). The success of a business in today's knowledge-based economy depends on how well knowledge can be shared between individuals, teams, or units. Knowledge-sharing behavior can contribute to creating various organizational capabilities such as innovation to improve performance (Wang & Wang, 2012; Harms et al., 2010).

Business innovation has succeeded in mediating the influence of social media networks on MSME's growth. The purpose of a company adopting social media is to promote their business by allowing them to understand the impact of technology, the environment, and the organization's potential in improving business performance. It means that social media can direct companies to improve knowledge competencies that will contribute directly or indirectly through the innovation process to company performance (Oyewobi et al., 2020b, 2021b). The use of social media networks by MSMEs can capture customer feedback quickly and accurately, thus facilitating the innovation process. Customers can provide input and suggestions to indirectly provide innovative business ideas (Oyewobi et al., 2021b). The results of the innovation process have the potential to increase business growth (Palacios-Marqués et al., 2016b; Palacios-Marqués, Merigó, et al., 2015).

Social media network has a positive effect on MSME's growth mediated by knowledge sharing. The research findings support the research results, which explain that internet technology is increasingly being used in all knowledge management processes, including knowledge acquisition, knowledge sharing, and the use of knowledge (Palacios-Marqués, Merigó, et al., 2015). Knowledge sharing can link the successful use of internet technology to the performance of MSMEs (Palacios-Marqués, Merigó, et al., 2015; Tajvidi & Karami, 2021).

The ability of MSMEs to carry out business innovation is also determined by the ability of employees to share knowledge and combine knowledge (Ritala et al., 2015). The key to success in creating new knowledge depends on the ability of employees to capture knowledge from co-workers and external parties. The knowledge transformation process will be easier when employees can share knowledge well to create business innovations and indirectly contribute to improving business performance (Eidizadeh et al., 2017; Castaneda & Cuellar, 2020).

The results of this study support the Theory of Communication Visibility, which states that social media provides a platform for message transparency and network transparency to increase knowledge about "who knows what" and "who knows who." This study illustrates that social networks are formed through social media among MSME owners, employees, and external parties that can be used internally and externally for knowledge-sharing activities for MSMEs. The emergence of social media such as WhatsAppogs, wikis, microblogs, Facebook, and WhatsApp, communication between co-workers is more visible to third parties than many previous communication technologies such as email. For example, status exchanges of what someone is working on often appear on third-party walls or newsfeeds.

In the context of this research, MSME owners or employees who are connected to a particular MSME cluster social network will get information from the status of someone who uploads what they are doing. A person can articulate their social network and tag documents and images that co-workers generate on social networking sites by providing further visibility to outsiders. Thus, the MSMEs that become the network will learn new ways of working or obtain information about cheaper resources. The knowledge-sharing process through social media networks will provide and generate new ideas to create innovation as the main predictor of improving MSME performance.

## 5. Conclusion

This study has discussed the problem of examining the mediating role of knowledge sharing and business innovation on social media networks on growth, especially for young entrepreneurs at Indonesian state universities. This study empirically proves the influence of social media networks on knowledge sharing, innovation, and performance. Using social media networks can support knowledge sharing between employees and business to business. An organization can achieve the best performance if it can manage information technology well to encourage and generate creative ideas to build knowledge sharing.

Therefore, entrepreneurs are encouraged creativity and awareness in improving information technology management. Improving information technology can be a strategic choice to deal with environmental changes that are increasingly fast because of its ability to increase sales, can provide cost efficiency and products produced, and can improve customer service. Thus, internet technology, especially social media networks, can be used to distribute experiences and knowledge to achieve individual innovation throughout the organization. Furthermore, knowledge sharing that appears in a company affects innovation. Knowledge sharing also has a positive effect on growth. Business innovation has succeeded in mediating the influence of social media networks on the development and growth of MSMEs.

The implications of this research on the Theory of Communication Visibility are to expand the theory. Empirical exploration and validating the new relationship between social media networks in increasing knowledge sharing activities to achieve innovation and organizational performance are the ways to expand the theory. Suppose Leonardi (2014) makes the basis of this theory for qualitative research on service companies. In that case, this research provides a new perspective by basing this theory on explaining quantitative research conducted on MSMEs.

This study has several important implications for practitioners, including 1) considering the importance of social media networking in creating innovations to win the competition, young entrepreneurs need to develop their knowledge by using social media platform. 2) entrepreneurs and their employees can use social media networking to absorb new information and knowledge from the external environment. In addition, MSMEs can also receive various inputs from partners, customers, suppliers, business partners through social media. Moreover, young people are very familiar with the use of social media. Therefore entrepreneurs can use it for the progress of MSMEs, namely to improve innovation. 3) Young entrepreneurs need to consider knowledge sharing for transmiting tacid knowledge to organizational knowledge. In addition to practical implications, this study also offers theoretical implications. In the last few decades, there have been many studies that examine determinant innovations in MSMEs.

This study has several limitations. 1) Respondents in this study are limited to young entrepreneurs who are members of the university business incubator, so they do not include all young entrepreneurs outside the university. This condition leads to the data tends to be homogeneous in age, education, and followed training by young entrepreneurs. The results might be different if the study includes different respondents from various circles. Future study is expected to include young entrepreneur respondents from various circles so that the data obtained is more heterogeneous. 2) there is no control variables to mitigate its cross-sectional design. It is expected for future research using control variables in mitigating cross-sectional designs 3) the results of this study can be used as comparison materials or references for further research to deepen further research by using the influence of social networking media with different variables.

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