

The Role Of Innovation In Mediating Knowledge Sharing And Business Performance

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ABSTRACT

Micro, Small and Medium Enterprises (MSMEs) provide opportunities for employment opportunities in an effort to improve economic standards. However, the Covid-19 pandemic has had a significant impact on economic activities. Decrease in sales turnover, so that the performance of MSMEs runs less than optimal. Based on records from the Office of Cooperatives and Micro, Small and Medium Enterprises, there are 1,538 MSME players affected by the Covid-19 pandemic. This research focuses on the role of Micro, Small and Medium Enterprises (MSMEs) in Semarang City in improving their performance and productivity due to the Covid-19 pandemic. Data sources are obtained through survey methods through the distribution of questionnaires to collect information. The population in this study was all MSME business people in Semarang City and a sample of 96 informants was obtained using *purposive sampling techniques*. Based on the data from the questionnaire, it was found that respondents were dominated by women as much as 65.63%, the age range of 41-50 years as much as 31.25%, the last education S1 as much as 38.54%, business experience in the range of 1-10 years as much as 70.83%, the number of workers less than 5 people as much as 65.63%, and sales volume less than Rp 50,000,000, - as much as 70.83%. Mediation hypothesis testing is done through path analysis using SPSS. The results of this study show that knowledge sharing affects innovation and the performance of MSME actors, innovation affects the performance of MSME actors, and the quality of MSME business performance in Semarang City is based on the level of knowledge sharing through innovation development.

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1. Introduction

The growing micro, small and medium enterprises (MSMEs) make it a growth in job creation [1]. MSMEs in addition to playing a role in expanding employment opportunities and employment are also contributors to the formation of Gross Domestic Product. However, since the Covid-19 pandemic which began on March 11, 2020, it has resulted in the performance of MSMEs has not been optimal. During the Covid-19 pandemic, MSMEs experienced a decline in sales turnover, the number of consumers and even their businesses did not sell. Small businesses are businesses that have been severely affected by the Covid-19 pandemic and resulted in bankruptcy [2].

Covid-19 has had a negative impact on the growth of MSME performance in the city of Semarang. The Cooperatives and Micro, Small and Medium Enterprises Office of Semarang City recorded that as many as 1,538 MSME players in Semarang City were affected by the COVID-19 pandemic with varying levels of impact. Some were affected 75 percent so that their business stopped, some were only 50 percent, some were 25 percent. In facing these problems, MSMEs must be able to find the right answers by managing knowledge *sharing* behavior and innovation.

Knowledge sharing behavior consists of two key processes: donating knowledge (*knowledge donating*) that belongs to one individual to another individual and collects knowledge (*knowledge*

collecting) carried out by the individual recipient of the information [3]. Previous research has shown that knowledge sharing affects performance [4][5]. In addition, it was also found that the results of previous research that knowledge sharing had no effect on performance [6][5][7]. Based on this gap research, the gap is solved by creating an indirect influence model between knowledge sharing and performance. In this case innovation as a mediating variable [8].

The existence of innovation for a company is very important. Innovation is a tool to exploit change as an opportunity to do business and different services [9]. Innovation is becoming increasingly important as economies become more reliant on innovative, knowledge-intensive companies [10]. Companies that are increasingly focused and committed to innovation will advance faster and improve rapidly. Previous research has found that innovation affects performance [11][8][12][9]. Furthermore, past research has found that innovation can mediate the influence of knowledge sharing with performance [8].

In general, this research aims to optimize performance through the role of innovation as a mediation for knowledge sharing and performance. Specifically this research is for:

1. Testing the effect of knowledge sharing on performance
2. Examine the impact of knowledge sharing on innovation
3. Testing the impact of innovation on performance
4. Examine the role of innovation as mediating the influence of knowledge sharing with Performance

2. Method

This study applies the survey method, which is used to collect information related to the variables that are the focus of research. Research objectives include developing theories, testing hypotheses, or contributing to knowledge in a particular field to strengthen the theoretical basis on which the research is based. In general, research aims to obtain understanding, information, and answers to the research questions asked. It involves exploration, analysis, verification of concepts, phenomena, and relationships that are the focus of research.

In this study, the informants selected were all MSME business people in Semarang City. The number of samples studied was 96 informants, through sampling calculations using techniques purposive sampling. In this study, primary data were obtained through the distribution of questionnaires with structured statements, in accordance with the variables studied, including knowledge sharing, innovation and performance. Primary data refers to information obtained directly from the source, observed, and recorded for the first time.

Mediation hypothesis testing can be done through path analysis, which is run using SPSS software. The significance of the intervening variable can be determined using the Sobel Test application, namely Sobel Test Calculator for the Significance of Mediation. Through this test, it can be concluded whether the intervening variable acts as a mediator between the independent and dependent variables. The results of this test provide information about significance, both in One-tailed probability And two-tailed probability.

3. Results and Discussion

Sampling in this study was the community in Semarang city using *purposive sampling* method. The number of samples in this study was 96 respondents. Most of the respondents were women, as many as 63 respondents or 65.63%, this shows that women have more creativity in developing micro, small and medium enterprises. Next, most respondents with the most age between the age range of 41-50 years at 31.25% mean they already have experience and courage to open a business to prepare for retirement. Furthermore, most respondents were the last to study at the S1 level, which was 37 people or 38.54% showed that they had knowledge about how to do entrepreneurship. Next, most respondents have experience in doing business between 1-10 years, which is as many as 68 people or 70.83%, this shows that they in opening a business have new experience. Furthermore, the number of workers owned by business owners less than 5 people as many as 63 people or 65.63% shows that there are still many entrepreneurs who do not have a large number of workers. Sales volume with less than Rp. 50.000.00,- with the number of respondents as many as 68 people or 70.83%, this shows that this MSME is still new, so the sales volume is still small.

Table 1.

	Data Response	Frequency	%
Gender	Law – Law	19	26,03%
	Woman	54	73,97%
Age	11-20 Years	2	2,74%
	21-30 Years	13	17,81%
	31-40 Years	22	30,14%
	41- 50 Years	25	34,25%
	> 50 Years	11	15,07%
Education	SMA/SMK	30	41,10%
	DIPLOMA	9	12,33%
	S1	31	42,47%
	S3	2	2,74%
	Not SD End	1	1,37%
Effort Experience	1-10 Years	68	70,83%
	11-20 Years	17	17,71%
	21-30 Years	11	11,46%
Total Labour	< 5 Labour	63	65,63%
	5-10 Labour	33	34,38%
Sales Volume	< Rp. 50.000.000,-	68	70,83%
	IDR 50.000.000,-	17	17,71%
	up to IDR 100,000,000		
	> IDR 100,000,000	11	11,46%

3.1. Evaluasi Measurement (Outer) Model Uji Validitas

The validity test is used to measure the validity or validity of a questionnaire. A questionnaire is said to be valid if it is able to reveal something that will be measured by the questionnaire. This test is performed using size *convergent* validity on PLS. Value *convergent* The validity of each indicator can be seen from the loading value. An individual indicator is considered valid if it has a loading value above 0.70. [3] suggests that for the initial research of the development of a measurement scale of loading values 0.5 to 0.6 is considered sufficient. In this study will be used limits *loading factor* amounted to 0.6.

Table 2.

	Knowledge Sharing	Innovation	Performance
X1.1	0,817		
X1.2	0,818		
X1.3	0,486		
X1.4	0,686		
X1.5	0,909		
X1.6	0,875		
Y1.1		0,603	
Y1.2		0,458	
Y1.3		0,842	
Y1.4		0,871	
Y1.5		0,728	
Y1.6		0,810	
Y1.7		0,821	
Y2.1			0,656
Y2.2			0,708
Y2.3			0,233
Y2.4			0,825
Y2.5			0,837
Y2.6			0,780
Y2.7			0,551

Based on table 2, it can be seen that not all questionnaire items that will be used to collect data are valid, so they must be cut.

Table 3. Result For Cross Loading Setelah Dipotong

	Knowledge Sharing	Innovation	Performance
X1.1	0,814		
X1.2	0,802		
X1.4	0,703		
X1.5	0,919		
X1.6	0,879		
Y1.3		0,861	
Y1.4		0,892	
Y1.5		0,770	
Y1.6		0,802	
Y1.7		0,859	
Y2.1			0,710
Y2.2			0,748
Y2.4			0,808
Y2.5			0,820
Y2.6			0,824

Based on table 3 it can be seen that these conditions have been met so that all constructs in the estimated model meet the criteria of good *discriminant validity*, meaning that the results of data analysis can be accepted because the values that describe the relationship between constructs develop.

Reliability Test

A questionnaire is said to be reliable if a person's answers to the statement are consistent or stable over time [13]. Reliability test is the level of stability of a measuring device in measuring a symptom / event. The higher the reliability of a measuring device, the more stable the measuring device. A construct is said to be reliable if it provides value *Cronbach Alpha* > 0,60 [14].

Table 4. Cronbach Alpha

	<i>Cronbach Alpha</i>
Knowledge Sharing	0,882
Innovation	0,894
Performance	0,850

^a. Source: Data processing with PLS, 2023

Apart from *Croanbach Alpha*, to assess the reliability of a construct can also be done by looking at *Composite Reliability* between constructs with indicators giving good results above 0.70. where the loading factor results of 0.70 and above are good.

Table 5. Composite Reliability

	<i>Composite Realibility</i>
Knowledge Sharing	0,915
Innovation	0,922
Performance	0,888

^b. Source: Data processing with PLS, 2023

Table 5 shows from the results *composite reliability* Each construct is good i.e. above 0.7. [15] An indicator is said to have *Reliability* which is good if the value is above 0.70 and can be maintained and accepted at a value of 0.50 to 0.60. Seen here the value for the whole variable has a value *composite Reliability* > 0.7 means that it has a good reliability value and can be used for further research processes.

3.2. Struktural Model Testing (*Inner Model*)

Judge *inner model* is to see the relationship between latent constructs by looking at the results of estimating the path parameter coefficient and the level of significance [16]. Here are the values *Adjusted R-square* at Construction.

Table 6.

	<i>Adjusted R-Square</i>
Innovation	0,408
Performance	0,465

c.

Source: Data processing with PLS, 2023

Table 6 shows that the *Adjusted R-square* value of the Innovation construct (Y1) is 40.8%. That is, the variables Knowledge Sharing, Innovation, and Performance can explain the construct of the Performance variable by 40.8%, while the remaining .59.2% is explained by other variables. Next for the Performance construct (Y2) is 46.5%. That is, the variable construct is able to explain the performance variable construct (Y2) by 46.5%, while the remaining 53.5% is explained by other variables.

3.3. Research Model

Here is the output of the loading factor construct structure model that will explain the relationship between constructs.

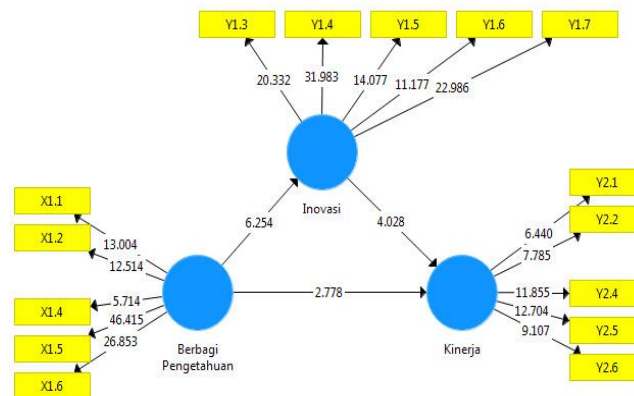


Fig. 1. Display of PLS Results Algorithm

To determine whether a hypothesis is accepted or not by comparing t-count with t-table provided that if t-count > t-table or p values < its *alpha level* (0.05), then the hypothesis is accepted. For more details can be seen in the following table.

Table 7. Test Hypotheses

	Original Sample (O)	Sample Average (M)	Standard Deviation (STDEV)	T Statistik (O/STDEV)	P Values
Knowledge Sharing -> Innovation	0,643	0,628	0,103	6,254	0,000
Knowledge Sharing -> Performance	0,315	0,303	0,113	2,778	0,006
-> Performance Innovation	0,444	0,441	0,110	4,028	0,000

^d. Source: Data processing with PLS, 2023

Based on table 7, it can be interpreted as follows:

- 1) The Effect of Knowledge Sharing on Innovation.

Based on the results of the PLS test in table 3.7 above, the first hypothesis is that the effect of Knowledge Sharing (X) on Innovation (Y1) is known Result *original sample estimate* is 0.643, the calculated t value (6.254) > the table t (2.00) and the P value is 0.000 < 0.05. Knowledge Sharing Significant positive effect on Innovation.

2) The Effect of Innovation on Performance

Based on the results of the PLS test in table 3.7 above on the second hypothesis, namely the effect of Innovation (Y1) on Performance (Y2) The original sample estimate result is 0.444, the calculated t value (4.028) > t table (2.00) and the P value is 0.000 < 0.05. Innovation has a significant positive effect on Performance.

3) The Effect of Knowledge Sharing on Performance

Based on the results of the PLS test in table 3.7 above on the third hypothesis, namely the effect of Knowledge Sharing (X) on Performance (Y2) is known The original sample estimate result is 0.315, the calculated t value (2.778) > t table (2.00) and the P value is 0.006 < 0.05. Knowledge Sharing has a significant positive effect on Performance.

3.4. Effect of Mediation

Table 8. Mediation Test Results

	Original Sample (O)	Sample Average (M)	Standard Deviation (STDEV)	T Statistik (O/STDEV)	P Value s
Knowledge Sharing -> Innovation - Performance >	0,286	0,280	0,092	3,094	0,002

^a Source: Data processing with PLS, 2023

From Table 8 above Knowledge Sharing (X) to Performance (Y2) through Innovation (Y1) as mediating the fourth known hypothesis value *original sample of estimate* 0.286 and the calculated t value is 3.094 > the statistical t value (2.00) and the p value is 0.002 < 0.05 so that it can be concluded that Innovation can mediate the relationship between Knowledge Sharing and Performance.

Discussion

The Effect of Knowledge Sharing on Performance

In the first hypothesis, research results were obtained which stated that knowledge sharing has a positive and significant effect on innovation, which means H1 is accepted. This can be known in the results *original sample estimate* of 0.315 with a calculated value of > ttable of 2.778 > 2.00 and a P value values by 0.006 < 0.05. The higher the knowledge sharing behavior, the more it will improve the performance of MSME actors.

In this study, it is known that women become the dominant gender in influencing knowledge sharing on the innovation of MSME actors, which is as much as 73.97%. Women are known as figures who tend to have better communication and empathy skills, so they feel that sharing knowledge feels more comfortable in an effort to improve business performance. Especially women aged 41-50 years, which is as much as 34.25%. They tend to have a long-term perspective that allows them to analyze the impact of short-term decisions on long-term goals. Therefore, they contribute higher in the willingness to share knowledge to improve performance. In addition, the S1 education level dominates in influencing knowledge sharing on performance, which is as much as 42.47%. With an education degree that has been achieved, they can develop communication, analysis and problem-solving skills that can support the ability to share knowledge with fellow peers to improve the quality of better performance. Meanwhile, business experience is also important in sharing knowledge. The dominant business experience ranges from 1-10 years as much as 70.83%. During the period of the experience, they have concrete stories and examples that can be used to support the arguments they give. So that the experience can create a basis of trust and credibility in sharing knowledge to improve performance. Meanwhile, usually MSME actors with a workforce of less than 5 people are more dominant in sharing knowledge which is strengthened by the results of

respondents as much as 65.63%. With a small workforce, it allows each workforce to be involved in various operational aspects. This creates opportunities to learn from each other and exchange roles, thereby increasing collective understanding of business operations and how to improve performance. In fact, sales volume also affects knowledge sharing towards innovation. The dominant sales volume is below Rp 50,000,000 as much as 70.83%, because structural simplicity and focus on shared results can be factors that support the effectiveness of knowledge sharing to improve performance in business.

The results of this study are in line with research [4] which states that knowledge sharing affects performance. [4] suggests that knowledge sharing has an effect on employee performance. Employees are considered as company assets, so if employee performance increases, it is expected to improve overall company performance. Thus with the results of the study [8] which states that knowledge sharing has a positive and significant effect on business performance. The results of this study are also supported by research [17] which suggests that knowledge sharing has a positive and significant effect on performance. That is, productive workers actively sharing knowledge can create higher value and bring higher economic performance.

The Effect of Knowledge Sharing on Innovation

In the second hypothesis, research results were obtained which stated that knowledge sharing has a positive and significant effect on innovation, which means H2 is accepted. This can be known in the results *original sample estimate* of 0.643 with a calculated value of $t_{table} > 2.00$ and a P value values by $0.000 < 0.05$. The wider the range of knowledge sharing, it will increase the innovation of MSME actors.

In this study, it is known that women are the dominant gender in influencing knowledge sharing on the innovation of MSME actors, which is as much as 73.97%. Basically, women tend to be more open to collaboration and knowledge sharing due to the social aspects and strong community orientation in some contexts. Generally, some women find it easier to join a group, where they can share knowledge with each other. So it is possible to get new ideas to create an innovation. Especially women aged 41-50 years, which is as much as 34.25%. They have a high level of maturity and deep experience of various situations and problems. In addition, the S1 education level dominates in influencing knowledge sharing towards innovation, which is as much as 42.47%. With an attainable educational level degree, they will utilize the knowledge they have to share knowledge. They are challenged to implement the knowledge and skills they have directly in the business world. Meanwhile, business experience is also important in sharing knowledge. The dominant business experience ranges from 1-10 years as much as 70.83%. This is because someone who has 1-10 years of business experience tends to have an adequate combination of theoretical knowledge and practical experience. In that span of time, they have faced various challenges, gained a deep understanding of the venture and even developed specialized skills. Meanwhile, usually MSME actors with a workforce of less than 5 people are more dominant in sharing knowledge which is strengthened by the results of respondents as much as 65.63%. This is because in small teams, communication tends to be more direct and uninhibited. This allows information exchange and knowledge sharing to be easier without having to involve many structural layers. In fact, sales volume also affects knowledge sharing towards innovation. The dominant sales volume is below Rp 50,000,000 as much as 70.83%, because often these MSMEs are more flexible in responding to market and customer changes. This circumstance creates an environment that favors the exchange of ideas and knowledge to achieve rapid adaptation.

The results of this study are in line with research [8] which states that knowledge sharing has a significant effect on innovation. The results of this study are also supported by research [6] which shows that knowledge sharing has an effect on innovation. However, the results of this study are not in line with research [18] which suggests that if knowledge sharing is done in a complex and diverse manner, then companies will find it difficult to turn it into an innovation.

The Effect of Innovation on Performance

In the third hypothesis, research results are obtained that state that innovation has a positive and significant effect on performance, which means H3 is accepted. This can be seen in the results of the *original sample estimate* of 0.444 with a calculated value of $t_{table} > 2.00$ and P values of $0.000 < 0.05$. The higher the development of innovation, the more it will improve the performance of MSME actors.

In this study, it is known that women are the dominant gender in influencing innovation on the performance of MSME actors, which is as much as 73.97%. Essentially, women can bring diverse viewpoints and more creative approaches to problem solving. So that women contribute to creating innovations to improve performance. Especially women aged 41-50 years, which is as much as 34.25%. By entering a more mature stage of life, women aged 41-50 years have faced various challenges and failures during their lives. So they become more resilient to risk, allowing them to take the initiative in developing innovations to improve performance. In addition, the S1 education level dominates in influencing knowledge sharing towards innovation, which is as much as 42.47%. With attainable educational level degrees, they can provide greater access in developing innovative thinking. It often allows the formation of networks and collaborations that can support the development of innovation. Meanwhile, business experience is also important in sharing knowledge. The dominant business experience ranges from 1-10 years as much as 70.83%. In that span of time, they built a strong professional network. The experience provides practical insight into the dynamics of the business and the real challenges faced. Meanwhile, usually MSME actors with a workforce of less than 5 people are more dominant in sharing knowledge which is strengthened by the results of respondents as much as 65.63%. This is because with a small number of workers can make decisions faster without complicated bureaucracy. This speed allows for a faster response to market changes or innovative opportunities. In fact, sales volume also affects knowledge sharing towards innovation. The dominant sales volume is below Rp 50,000,000 as much as 70.83%, because limitations can be used as advantages. Limited budgets can inspire more creative thinking to achieve goals with available resources.

The results of this study are in line with the research conducted [8] which states that innovation affects business performance and company performance. Another argument suggests that innovation is an important guarantee for companies or organizations to improve their competitiveness, whether locally, nationally, or in the context of the global environment [14]. The results of this study are also supported by research [19] which suggests that innovation has a moderate relationship with MSME business performance.

The Effect of Knowledge Sharing on Performance Through Innovation as Mediation

In the fourth hypothesis, research results were obtained which stated that innovation can mediate the relationship between knowledge sharing and performance, which means H4 is accepted. This can be seen in the results of the *original sample estimate* of 0.286 with a calculated value of $> \text{table of } 3.094 > 2.00$ and *P values* of $0.002 < 0.05$. The wider range of knowledge sharing will improve performance through the development of MSME innovation.

Knowledge sharing activities carried out by MSME actors can increase the knowledge of each individual, which can then be used to generate new ideas and innovations in the business world. Increasing the innovation ability of each individual will have a positive impact on employee performance. Therefore, it can be concluded that the relationship between knowledge sharing on performance, shows the indirect influence of knowledge sharing on performance through innovation as a mediating variable. The results of this study are supported by the results of the study [20] which reveals that innovation plays a full mediating role in the relationship between knowledge sharing and marketing performance.

4. Conclusion

Based on the results of the analysis that has been carried out, the following conclusions can be drawn:

- 1) The results of the first hypothesis testing are known that knowledge sharing variables have a positive and significant effect on performance. This means that the hypothesis that the wider the range of knowledge sharing, the more the performance of MSME actors, is accepted.
- 2) The results of testing the second hypothesis are known that the variable of knowledge sharing has a positive and significant effect on innovation. This means that the hypothesis that reads the wider the range of knowledge sharing, the more innovation MSME actors will increase, is accepted.
- 3) The results of testing the third hypothesis are known that the innovation variable has a positive and significant effect on performance. This means that the hypothesis that the higher the

development of innovation, the more the performance of MSME actors will increase, is accepted.

- 4) The results of testing the fourth hypothesis are known that knowledge sharing variables positively affect performance through innovation. This means that the hypothesis that reads sharing knowledge on performance through innovation, is accepted.

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