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THE ROLE OF PARTNERSHIP IN PRODUCTION TOWARDS PERFORMANCE OF INDONESIA'S MICRO AND SMALL ENTERPRISES

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Abstract: *A partnership can increase production capability due to the financial limitations of Micro and Small Enterprises (MSEs). Based on Indonesia's Micro and Small Industry Profile 2018, partnerships in raw materials, machinery, facilities, infrastructure, and equipment as a partnership in production are the most widely implemented types of partnerships. However, research on partnerships in production is still very limited although it has been practically proven that partnerships in production can improve the performance of MSEs. The study aims to examine the role of partnership in production towards the performance of MSEs theoretically and propose recommendations for MSEs to improve their performance. The contribution of this study is the developed model of MSE's performance in Indonesia which considers a partnership in production as a moderating variable. Also, consider process innovation and demand optimization as independent variables. This study uses the data of Micro and Small Industry Survey 2015 and examine the hypothesis using regression analysis. This study found there is a significant positive effect of interaction between demand optimization and partnership but a significant negative effect between a process innovation and partnership towards performance. The negative effect may occur temporally because there is time to adopt new production skills or techniques.*

Keywords: *Micro and Small Enterprises, Performance, Partnership in Production, Process Innovation, Demand Optimization*

1. Introduction

1.1 Background of The Study

Small-scale industries covering Micro and Small Industries are placed as one of the long-term contributors to the national economy outlined in the National Industrial Development Master Plan (RIPIN) 2015-2035. Based on the Micro and Small Industry Profile in 2018, MSE business capital is dominated by fully owned capital of 85.35%. Based on an article from the Central Bureau of Statistics, MSEs can survive because most of the human resources, capital, raw materials, and equipment come from local resources so that the rupiah exchange rate spikes. This was also evidenced during the monetary crisis of 1998, the rupiah exchange rate spike did not significantly affect the production cost of MSEs.

One measure of MSE's performance towards economic growth in a country is productivity. (Mulyati et al., 2006) also said that increased productivity is a form of development of a country because it impacts the prosperity of the country and is a means used to get out of poverty. The Ministry of Industry measures productivity based on the amount of contribution to Gross Domestic Product (GDP) where GDP measures the amount of added value generated by all business units in a country. The increasing number of goods produced makes the supply of goods increase which has the effect of lowering the price of goods. Workers who can produce more goods also have the potential to earn higher wages. The decrease in the price of goods accompanied by the potential increase in revenue will boost economic development in a country.

Based on Asia Small Medium Enterprise Finance Monitor 2014 data, the productivity per MSME workforce, which also consisted of MSEs workforce, in Indonesia is $1,355. When compared to ASEAN countries that have relatively similar levels of development, such as Malaysia and Thailand, the productivity rate per MSME's workforce in Indonesia is still very low. Malaysia has a productivity rate per workforce of $20,609 or 15 times more than the productivity rate per Indonesian workforce even though Malaysia's development rate is above Indonesia's. Meanwhile, Thailand, which has a lower development rate than Indonesia, has a productivity rate of $12,263 per workforce or nearly 10 times the productivity per workforce in Indonesia.

Although MSE is considered to have great potential, MSE is still faced with many obstacles. One of the factors that inhibit MSE in efforts to improve performance is the lack of financial resources. Limited financial resources also pose other obstacles such as the low quality of human resources. In addition to the low quality of human resources, the limitations of financial resources also make it difficult for MSEs to implement new technologies or systems in the production activities of the industry. This is also following what (Yacob et al., 2012) state where the inhibitory factor that has a large impact on performance is the limitation of financial resources.

The importance of improving performance accompanied by low productivity levels of Indonesian MSMEs, which also consisted of MSEs, makes improving performance necessary. The government also realized and seek to improve the performance set out in Law No. 20 of 2008 on MSMEs, including reducing the final income tax rate of MSMEs from 1% to 0.5%, accelerating licensing with single submissions, lowering the interest on Kredit Usaha Rakyat (KUR) to 6%, and the Partnership and Community Development Program through MSMEs. One of the government's efforts in overcoming the main obstacles of MSMEs is the decrease in the interest rate on KUR loans. Thus, MSMEs can overcome financial limitations as the main obstacle in improving performance.

Although the government has lowered the interest on KUR loans, the Indonesian Association of MSMEs (Akumandiri) says that 80% of KUR is absorbed by non-production trade where KUR is judged to be not on target (Kurnia, 2019). This is also similar to what the members of House of Representatives of Indonesia Commission VI, Chairul Anwar, said, where KUR distribution is less effective because the composition of KUR distribution in the production sector is very low, 54.35% KUR is only channeled to MSMEs in Java Island (Sarnapi, 2020). From the results of research on the implementation of Law No. 20 of 2008 both in the fishery sector (Ambarini, 2017) and in the convection and border sectors in Kudus (Aliffiana & Widowati, 2018) also concluded that the empowerment of MSME carried out by the government is still not maximal and feel that access to financing is still not on target.

1.2 Formulation of Problems

The importance of improving the performance of MSMEs, which consisted of MSEs, has also been a concern of many researchers in different countries. Factors that affect the performance of MSMEs are generally categorized into 3 categories namely internal factors, external factors, and relationship or collaboration factors. Internal factors are factors where the MSME has complete control over the MSME. External factors are factors in which the MSME has no control or power. While the relationship or collaboration factor is a factor where internal parties and MSME are sharing power with external parties.

Based on a literature review of previous research, the most studied internal factor is innovation. Broadly, Hsueh & Tu (2004) examines the growth of innovative environments, the ability to innovate, the management of innovation, and the application of innovation. Another researcher also indicates innovation as innovation capability, future planning capability, and risk-taking willingness (Hadiyanti, 2011). But other researchers see innovation more specifically where in general innovation is categorized into many categories which are process innovation, product innovation (Dibrell et al., 2008), market innovation (Rosli & Sidek, 2013) logistics innovation, administrative innovation (Nasip, 2017), marketing innovation, organizational innovation (Afriyie et al., 2019), research and development innovation, training innovation (Liao & Rice, 2010) as part of innovation.

Some researchers also examined factors in human resource management functions (Sels et al., 2006), the way business owners or their leaders manage the activities that exist within the company (Sucipto et al., 2015), While Afriyie et al. (2019) examine the influence of idealism, motivation, intellectuals, stimulation, individualism, and considerations possessed by leaders. Several other researchers also tried to research the background of business

owners or their leaders (Hsueh & Tu, 2004; Rosli & Sidek, 2013). Also, some researchers try to look at the company's strategies (Sucipto et al., 2015), entrepreneurship orientation (Suci, 2009; Zaato et al., 2020), and customer orientation (Ku et al., 2015), the company's stated culture (Lestari et al., 2018), the absorption capacity (Liao & Rice, 2010; Nasip, 2017), characteristics of a company such as the size of the company (Hsueh & Tu, 2004), the age of the company (Rosli & Sidek, 2013), and entrepreneurship behavior (Rante, 2010).

Internal factors related to production function have also been studied by several researchers, including demand optimization (Rezaei et al., 2018), flexibility to change output volume, flexibility to change product mix, and timing of new product design (Ku et al., 2015). The company's investment in information technology where the information received by the company must be accurate and quickly become a factor researched by Dibrell et al. (2008). He measures information technology investment based on the total dollars of information technology assets, total information technology investment, number of information technology workers, number of personal computers, and number of terminals per worker.

Not only internal factors, but some external factors are also examined because it is thought to affect the performance of MSMEs are divided by their fields, namely politics, economy, demographics, and social (Cicea et al., 2019). The political environment is illustrated through the corruption perception index. The economic environment is illustrated through the absorption rate of funding, GDP, the rate of inflation, the general expenditure of the state. Demographic environments are illustrated through life expectancy. While the social environment is illustrated through the level of education of the population, the risk of poverty or social isolation, and the unemployment rate. Rante (2010) also examines ethnic culture as an external factor that influences the performance of MSEs.

In addition to internal and external factors, the performance of MSMEs can also be influenced by relationship or collaboration factors, one of which is a partnership. Partnerships are mutually beneficial relationships between parties that partner through information sharing, knowledge, and even in terms of resources. Through partnerships, MSMEs that have major barriers in the form of financial resource limitations can still get worker skills training, access to better raw materials, support in the form of machinery and production equipment to increase production capacity and quality, and much more. Partnerships can be described through control, decision, communication (Rezaei et al., 2018), contract form, fair agreement, the focus of relationship or fairness, identification or selection, strong relationships, support or motivation, training, evaluation (Sucipto et al., 2015), two-way information sharing, shared problem solving, and long-term commitment (Ku et al., 2015).

Following the Strategic Plan of the Ministry of Industry 2020-2024, one of the directions of government policy to strengthen economic resilience for quality and fair growth is by increasing the partnership between small micro enterprises and large businesses. Companies, especially State-Owned Enterprises (SOEs), continue to be encouraged by the government to implement partnership programs with small micro-enterprises as a form of social responsibility (Corporate Social Responsibility). The government's efforts in building partnerships are also seen from the issue of Law No. 19 of 2003 on State-Owned Enterprises and the Regulation of the Minister of State-Owned Enterprises Number Per-05/MBU/2007 on the State-Owned Enterprises Partnership Program with Small Business and Environmental Development Program.

Based on Micro and Small Industry Profile 2018, MSE in Indonesia established a partnership of only 8.07% of the total of 4.26 million MSE businesses. Of the 8.07% of MSEs that entered into partnerships, 36.99% entered into partnerships in the form of marketing, 34.25% formed partnerships in the form of raw materials, 11.16% entered into partnerships in the form of machines, 8.43% formed partnerships in the form of money, 4.94% formed partnerships in the form of facilities/infrastructure/equipment, and the remaining 4.22% formed partnerships in other forms. When viewed from the partnership function grouped by Rezaei et al. (2018), it can be seen that partnerships in the form of raw materials, in the form of machines, and in the form of facilities/infrastructure/equipment as a form of partnership in production dominate the type of MSE's partnership in Indonesia, which is reaching 50.34%.

Practically, based on the Asian Productivity Organization (2002) report, MSE managed to increase productivity through partnerships in the production of chicken farmers in Fiji and cattle farmers in Indonesia. Chicken farmers in Fiji who are classified as MSE can increase their productivity through partnerships with poultry meat managers.

Poultry meat managers supply chicken feed, treatment, and technical support to produce chickens with quality that conforms to the standards of poultry meat managers. Thus, poultry meat managers obtain a continuous supply of chickens with guaranteed quality. In addition to chicken farmers in Fiji, cattle farmers in Indonesia also partner with Nestle Company to obtain a continuous supply of quality cow's milk by providing a wide range of technical support needed to increase productivity such as providing biogas systems for household purposes while reducing greenhouse gas emissions generated by 28,000 cows (UNIDO, 2004).

From what has been explained before, partnership factors are an interesting factor to research because partnerships can be an alternative to MSEs to still increase production capacity, worker skills, and other things that are difficult to obtain due to financial limitations. Based on Micro and Small Industry Profile 2018, partnerships in production demonstrated through partnerships in raw material, machinery, and facilities/infrastructure/equipment are the most widely implemented types of partnerships in Indonesia. However, research on partnerships in production is still very limited although it has been practically proven that partnerships in production can improve the production performance of MSEs. Therefore, this research is interested in examining the role of partnerships in production on MSE's performance models. Furthermore, the model will be used as a basis to provide recommendations to the MSEs to improve the performance. Thus, the formulation of the problem is based on the identification of the problem that has been done:

a) Develop a model of MSE's production performance about the role and pattern of partnership in production; and
b) Propose recommendations can be considered by MSEs to improve performance.

1.3 Research Framework and Hypothesis

Determine the variables which directly affect the production performance of MSEs at first need to figures whether partnerships contribute to production performance. Ku et al. (2015) and Panayides (2006) stated that innovation is essential for companies to improve their business performance. There are several types of innovation: product or service innovation, process innovation, position innovation, and paradigm innovation. Because production performance becomes a focus in this paper, the company defined has innovation when the company innovates its production process. Besides, Asche et al. (2012) stated that innovation could improve productivity, which is a form of production performance. (Jenssen & Aasheim, 2010) specifically said that process innovation, which directly correlated with the efficiency of production, is critical. Hult et al. (2004) also stated that innovativeness is essential because it relates to business performance. Based on those discussions, this paper will use process innovation as one of the independent variables on production performance.

This paper suggests that there is a moderating effect of partnership in production on the influence of process innovation toward production performance in Indonesia MSEs. Hult et al. (2004) concluded there is a factor that drives innovation, and it may influence the improvement of the firm performance. In other words, there is innovation-driven by a factor that moderates firm performance. Another researcher also stated that the relationship between innovation and corporate performance is undirect, influenced by the impact of the environment (Shouyu, 2017). Jordan & O'Leary (2011) proved that a combination of internal resources and external knowledge becomes innovation-driven. (Rezaei et al., 2015) also confirmed that MSEs need to access external sources of information, knowledge, technologies to create their innovative capability. Supply chain partnerships provide access to external sources because the partnering firms can share knowledge, information, technology, and also a risk. Therefore, supply chain partnership, specifically in partnership in production can moderate the relationship between a process innovation and product performance.

Besides process innovation, another variable that directly affects production performance is demand optimization. As already known, every enterprise hardly predicts its actual demand, which makes enterprises face uncertain demand. To facing uncertainty, handle high levels of fluctuating demand caused by the uncertainty of demand needs optimization; it is called demand optimization (Rezaei et al., 2018). Based on a study conducted by (Hançerlioğulları et al., 2016) demand has a significant effect on the performance of a retail firm. Therefore,

production performance in the form of productivity can be improved through demand optimization or promptly fulfilled customer orders (Nyaga et al., 2007).

This paper also suggests that there is a moderating effect of partnership in production on the influence of demand optimization toward production performance in Indonesia MSEs. Forecast demand accurate to optimize demand. Accurate forecasting demand is occurred by sharing information among parties in the supply chain. According to Baihaqi & Beaumont (2006), many researchers also stated that information sharing has a significant effect on supply chain performance. According to Mentzer, who mentioned by (Baihaqi & Beaumont, 2006), Mentzer explicitly stated that information sharing makes enterprises more responsive to customer demand, a form of demand optimization. As already mentioned, Li et al. (2007) identify supply chain partnerships as a relationship between two independent enterprises that share information and risks to achieve their goals. Therefore, the driver of demand optimization is sharing information that can occur through partnership.

Based on the hypothesis development, the research model is developed and presented in Figure 1.

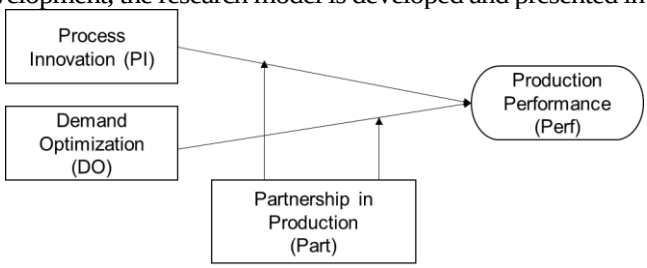

Figure 1. The Conceptual Research Framework

Based on the research model in Figure 1, the research question presents in the following hypothesis:

H_1: There is a significant moderating effect of partnership in production on the influence of process innovation towards production performance in MSEs.

H_2: There is a significant moderating effect of partnership in production on the influence of demand optimization towards production performance in MSEs.

2. Research Method

This paper uses secondary data provided by the Annual Small and Micro Industry Survey conducted by The Central Bureau of Statistics in Indonesia. The geographical coverage of this survey is all regions of Indonesia. The survey was conducted from 3rd of July 2015 until the 10th of October 2015 for stratified sampling, covering 60.000 micro and small companies, and after cleaning and processing, the data consists of 58.290 valid data. The survey uses in this paper because it covered all regions of Indonesia and provide more information about production in SMEs than another survey, which conducted in Indonesia. Another reason is the survey using stratified sampling, which provides greater precision than a simple random sample of the same size.

From 58.290 data, this paper only takes the data which correlated with four indicators in Table 1. As a result, there is missing data and only 30.224 data used. From 30.224 data, only 393 data or only 1.3% of Indonesia MSEs, which made a partnership. Because this paper carefully observes a partnership in production, this paper only used 393 data and classified it into "partnership in production" and "partnership in other areas". Based on the hypothesis, four variables consist of two independent variables, one moderating variable, and one dependent variable. The indicators for each variable defined in Table 1.

Table 1. Indicator of Variables

Variables	Indicators
Process Innovation (PI)	Production Skill or Technique Development
Demand Optimization (DO)	Inventory Turnover Ratio
Partnership in Production (Part)	Partnership in Raw Material, in Machine, Capital Goods, or Equipment
Productivity (Prod)	Income-to-Cost Ratio

In Table 1, the indicator of process innovation is production skill or technique development they received in the past year. According to Ussman, Almeida, Ferreira, Mendes, and Franco (2001), it is necessary to deepen knowledge of the innovative process. There are many ways to deepen knowledge as development, through courses, training, seminars, workshops, or conferences which relate with production skill or production technique. Jenssen and Aasheim (2010) also proved that a significant positive relationship between participation in informal education factors such as courses and conferences with innovation. Therefore, this paper will use a production skill or technique development as a measurement of the process innovation.

This paper uses the inventory turnover ratio as an indicator of demand optimization. Davis, on the paper of Hançerlioğulları et al. (2016), defines the different sources of uncertainty in supply chains: supply uncertainty, process uncertainty, and demand uncertainty. The main reason why a company needs to have inventory is because of demand uncertainty. If the company often fulfilled the demand, it makes inventory turnover ratio increased. The increasing inventory turnover ratio expressed that the company can quickly fulfill the demand, which indicates a company optimized its demand.

Partnership in production is a moderating variable in this paper. MSE, who made a partnership in raw material, machine, and capital goods or equipment for the past year, refers to a partnership in production. It is because that kind of partnership will support MSE during their production activities. Other than raw material, machines, and capital goods or equipment, it refers to partnerships in other areas.

The dependent variable in this paper is production performance. Table 1 mentioned that an income-to-cost ratio could express production performance. The income-to-cost ratio measures the efficiency of production through divide total direct income by total direct cost. Enterprises who have an excellent production performance will produce more output than a company with a lousy production performance with the same amount of inputs. Therefore, the income-to-cost ratio will increase when production performance also increases. Defines each indicator in the model to analyze the research model. The definition for each indicator in the model showed in Table 2.

Table 2. Definition of Indicators

Indicators	Definition
Production Skill or Technique Development	A dummy variable taking a value of 1 if MSE received skill or production technique training
Inventory Turnover Ratio	Cost of Goods Sold is divided by average inventory
Partnership in Raw Material, in Machine, Capital Goods, or Equipment	A dummy variable taking a value of 1 if the MSE had partnership either in raw material, machine, or capital goods or equipment
Income-to-Cost Ratio	Total direct income is divided by total direct cost

The research model in Figure 1 indicates that production performance is affected by innovation and demand optimization who are moderated by a partnership in production. Therefore, the hypothesis test by using the moderated regression analysis. In moderated regression analysis, it needs to analyze the model without a moderating variable, namely as a basic model before analyzing the effect of moderating variables. Model without moderating variable, namely basic model, is expressed by Equation (1):

$$Perf = \propto + \beta\_1 \cdot PI + \beta\_2 \cdot DO + \beta\_3 \cdot Part + \varepsilon \quad (1)$$

The basic model defines production performance (Perf) as a linear function of the process innovation (PI), demand optimization (DO), and partnership in production (Part).

Meanwhile, the model with interaction between process innovation also demands optimization as independent variables and partnerships in production as a moderating variable. The model, namely the interaction model, expressed by Equation (2):

$$Perf = \propto + \beta_1 \cdot PI + \beta_2 \cdot DO + \beta_3 \cdot Part + \beta_4 \cdot (PI \times Part) + \beta_5 \cdot (DO \times Part) + \varepsilon \quad (2)$$

The interaction model defines production performance as a linear function of the process innovation, demand optimization, partnership in production, interaction between a process innovation and partnership in production (PI×Part), and also interaction between demand optimization and partnership in production (DO×Part).

3. Results and Discussion

Based on the previous section, the data is analyzed using the moderated regression analysis. Firstly, it is needed to find whether a significant relationship between innovation as an independent variable and production performance as a dependent variable without moderated by a partnership in production, this model will be called as a basic model. Then models who considered moderating variable and interaction between moderating variable and each independent variable called interaction model.

3.1. Results

The results of R-squared value on basic and interaction models showed in Table 3.

Table 3. Model Summary

Model	R	R Square	Adj. R Square	Std. Error
Basic	.388[a]	0.151	0.144	3.606152
Interaction	.439[b]	0.193	0.182	3.525148

a. Predictors: (Constant), PI, DO, Part
b. Predictors: (Constant), PI, DO, Part, PI×Part, DO×Part

Based on the results of Table 3, it shows that the R-squared value of the basic model is 0.151. Process innovation only explained 15.1% of the variance for production performance, and other variables explain 94.9%. It proves that production performance is unexplained only by process innovation and demand optimization as independent variables in the basic model. Moreover, even though the R-squared value of the interaction model is still low, which is 19.3%, the R-squared value increased since it considers the interaction between each independent variable with a partnership.

Table 4. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
Basic	Regression	898.874	3	299.625	23.040	.000[b]
	Residual	5058.686	389	13.004		
	Total	5957.560	392			
Interaction	Regression	1148.440	5	229.688	18.483	.000[c]
	Residual	4809.120	387	12.427		
	Total	5957.560	392			

Table 4 shows that Sig. Value or commonly referred to P-value of the basic model, is 0.000. Since P-value is 0.000, it means process innovation, demand optimization, and partnership simultaneously influence production performance. Therefore, the interaction model is interpreted and compared with the basic model. Table 4 also shows that the P-value of the interaction model is 0.000. That value also means process innovation, demand optimization, partnership in production, interaction between a process innovation and partnership in production, also interaction between demand optimization and partnership in production simultaneously influence the production performance.

As the results in Table 5, production performance in the basic model is expressed by:
Perf= 6.507-3.411·PI +0.117·DO +4.174·Part
Meanwhile, production performance in the interaction model, which has interaction between independent variables and partnership in production as a moderating variable is expressed by:
Perf=2.488+5.457·PI+0.056·DO+9.342·Part-4.852·(PI×Part)+0.238·(DO×Part)

Table 5. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
Basic	(Constant)	6.507	0.675		9.645	0.000***
	DO	0.117	0.027	0.200	4.255	0.000***
	Part	4.174	0.567	0.490	7.363	0.000***
	PI	-3.411	0.621	-0.367	-5.495	0.000***
Interaction	(Constant)	2.448	1.298		1.886	0.060*
	DO	0.056	0.030	0.096	1.863	0.063*
	Part	9.342	1.813	1.097	5.154	0.000***
	PI	5.457	2.605	0.587	2.095	0.037*
	DO×Part	0.238	0.078	0.160	3.043	0.003***
	PI×Part	-4.852	1.440	-1.485	-3.368	0.001***

* Significant at alpha < 0.1
** Significant at alpha < 0.05
*** Significant at alpha < 0.01

Based on the results of Table 5, it shows that process innovation, demand optimization, and partnership have individually influenced the production performance since all P-value for all of the predictors in the basic model is less than 0.05. Surprisingly, standardize coefficients of process innovation have a negative effect on production performance. If an enterprise has a long process innovation, the production performance is less than enterprise with low process innovation. Therefore, it is needed to analyze why higher process innovation has a lower production performance.

3.2. Discussion

The reason why production performance decrease when process innovation increase is because the indicator of process innovation is the is production skill or technique development they received in the past year, which already explained in Table 1. In the context of process innovation, the production process in an enterprise also changes. Therefore, human workers need time to adapt to the new production process until they can optimally perform their tasks. In the process of learning and adapting, worker performance will decrease and make production performance decrease for a while because there is a learning curve. The learning curve shows the rate of learning progress new skills. Moreover, there is a lack of information when conducting training.

Another reason why the negative impact of process innovation on production performance in the basic model occurs is that Indonesia may be in a stable environment. The partnership model proposed by (Lambert et al., 2004) also said that supportive environmental factors facilitating partnership growth have an essential role in the partnership. Suppliers, producers, and customers in a stable environment uneasily want to change, which affects the innovative behavior of an enterprise may have a negative impact on its performance (Shouyu, 2017). Nevertheless, in a dynamic environment, enterprises need to create innovation to keep pace with change because innovative enterprises always beat non-innovative enterprises (Shouyu, 2017). Therefore, the interaction between the enterprise and the external environment are crucial for innovation (Hyvönen et al., 2004).

Based on the interaction results in Table 5, the interaction between a process innovation and partnership in production (PIxPart) also has a significant effect on production performance. Although, it also showed that the interaction between a process innovation and partnership in production has a negative effect on the production performance in the interaction model. The form of the interaction between a process innovation and partnership in production is open innovation. The open innovation approach refers to collaborative innovation and symbiotic

partnership among partnering firms (Munoz & Lu, 2011). The study (Henttonen & Lehtimäki, 2017) concluded that MSEs are likely not willing to share their information about technology, production process, and unique product concept. Therefore, it may indicate that Indonesia MSEs refused to share their knowledge because they fear others stole their advantages. A lack of knowledge may expose this condition as one of the main barriers to MSEs. Another reason is that the negative effect of process innovation in the basic model influences the interaction between a process innovation and partnership in production in the interaction model.

Besides interaction between a process innovation and partnership in production, the interaction result between demand optimization and partnership in production (DOxPart) also has a significant effect on the production performance, but in a positive effect. The result is logic because enterprises sharing information among parties in the supply chain as a form of partnership successfully optimized the demand. Optimizing the demand means the enterprise has capabilities to handle the fluctuating demand and successfully fulfilled demand. Fulfilling demand means to increase income as production performance. Therefore, if demand optimization increases, it also increases production performance.

4. Conclusion

Based on the previous sections, the interaction between a process innovation and partnership in production has a significant effect on the production performance as H_1 is accepted. Same as H_1, H_2 is also accepted, which concluded that the interaction between demand optimization and partnership in production has a significant effect on production performance. Therefore, this paper concluded that the partnership in production has an essential role in the production performance in Indonesia MSEs. It is also because the interaction of partnership in production has the most substantial contribution in both models, the basic and interaction model, compared with other predictors. However, there is only 1.3% of Indonesia MSEs, which made a partnership. It indicates that Indonesia MSEs unrealize that partnership can make many contributions to production performance.

Even though there is a significant effect, process innovation has a negative effect on production performance. It may because Indonesia MSEs refused to share their knowledge. After all, they are afraid their advantages were stolen by others and occur partnership in production is ineffective. It is also affected by the negative effect of process innovation in the basic model. The process innovation is indicated by is production skill or technique development, which means need time to learn and adapt to the new production process until they can optimally perform their task. Another suggestion is that Indonesia MSEs are in a stable environment, which makes the enterprise uneasily want to change, which affects the innovative behavior.

Indonesia MSEs recommends to make a partnership in production to improve their performance SMEs but in a proper open innovation environment. A proper open innovation environment means create trust and commitment among partnering firms. Through a proper open innovation environment, the partnering firms mutually share the knowledge, sources, resources, and mutual advantages among parties. For further research, it needs to identify the other variables that directly affect the production performance because both the model, basic and interaction model, make the production performance accurately explained. It also needs to identify indicator for process innovation because process innovation in this paper only measured by skill training and figures whether Indonesia MSEs is in a stable or dynamic environment.

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