

QUALITY OF HUMAN RESOURCES AND TECHNOLOGY INNOVATION TOWARD THE PERFORMANCE OF SMEs IN INDONESIA

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ABSTRACT

Small and Medium Enterprises or commonly abbreviated as SME is one way used by government to reduce unemployment rate, improve society economy and national development. So far, small and medium enterprises (SMEs) are able to create jobs and as a source of income society. In addition, SMEs are the drivers for the growth of development and economy of a country. Small and Medium Enterprises have great potential, in the development of Small and Medium Enterprises still have to deal with the main issues that still have to be considered. The purpose of this study is to know empirically the influence of the quality of Human Resources and technological innovation on the performance of SMEs. The population in this study includes the owners of Small and Medium Enterprises in Indonesia. Determination of the sample in this study using SEM method is based on predetermined criteria. Based on the methodology using questionnaires obtained a sample of 100. Data analysis techniques in this study using AMOS SEM analysis tool. The results showed the correlation between the quality of human resources with the performance of SMEs resulted in a p value of $0.00 < 0.05$, and its CR value of $4.632 > 2.00$ (CR value limit ≥ 2) and, the correlation between technological innovation and SME performance resulted P value of $0.004 < 0.05$, and its CR value of $2.845 > 2.00$ (CR value limit ≥ 2), which means the quality of human resources and technological innovation partially affect the performance of SMEs.

Keywords: Performance of SMEs, Quality of Human Resources and Technological Innovation.

1. BACKGROUND

Small and Medium Enterprises or commonly abbreviated as SME is one way used by government to reduce unemployment rate, improve society economy and national development. So far, SMEs are able to create jobs and as a source of income society. In addition, SMEs are the drivers for the growth of development and economy of a country. SMEs have great potential, but in the development of SMEs still have to deal with the main issues that still have to be considered (Faeni, 2016).

The role of SMEs can not be doubted, but on the other hand SMEs also have to face problems such as quality of resources and innovation is still low. The high competition in the free market makes

SMEs have to be able to face the challenge by improving the factors that become a big influence for SMEs such as improving the quality of tbsp, product development innovation, promotion system and expansion of marketing area.

SMEs or Small and Medium Enterprises can be a life support for many people, but still SMEs have problems that must be resolved soon. Therefore, there needs to be empowerment for SMEs. The empowerment of SMEs is an appropriate step in improving and strengthening the economy for the lives of Indonesians, as SMEs are able to open new jobs, reduce gaps and reduce unemployment and poverty of the Indonesian people.

Human Resources as a unity of human labor in an organization and not just the sum of the existing employees (Matindas, 2002) in (Azkia et al., 2016). While the quality of human resources has a level of knowledge (knowladge), ability (skill), and the ability (ability) that can be shown by good human resources to the quality of the resulting performance (Rucky, 2003) in (Azkia et al., 2016) . The quality of human resources who have the knowledge of ability in accordance with the main tasks and job functions, which become the main factor to realize the achievement of SMEs to the fullest.

Various results from previous findings that the quality of human resources is a factor that has an influence on the performance of an SME, so that the quality of innovative human resources in the field can improve the performance of SMEs.

As an organization begins to pay attention to the environment of global competition, innovation will be one of the key factors of success. Innovation is an alternative for organizations to survive in a dynamic and volatile environment (Cottam, 2001) in (Perwiranegara, 2015). This reflects the importance of innovation for organizations in today's business environment.

Innovation is the application of new ideas to the company and creates added value both directly and indirectly within the company to customers (Weerawardena et al., 2006) in (Perwiranegara, 2015). While (Rademakers, 2005) in (Perwiranegara, 2015) divides the types of product innovation, process innovation, organizational innovation and business innovation.

Innovation and development of products or processes is one of the prerequisites of strategic function, because companies must be able to improve technology, knowledge, capacity exploitation and reach the market. The ultimate hope will certainly be able to improve the performance (performance) of the company. The importance of innovation strategy to company performance is important to be discussed in this research. The innovation strategy can be measured by using the leadership orientation dimension and the type of innovation used (Zahra and Das, 1993) in (Parwiranegara, 2015).

In the business world there is of course a competition to establish or create a business of its own like a SME. Currently SMEs are not a few people who founded it. People establish SMEs by producing products or services. Society strives to provide the best to produce a good performance of the business. In the effort did not escape the quality of human resources and innovation in order to get good ideas. In this way will create the desired results on the performance of the business. Based on the above background, the author would like to examine how the Quality of Human Resources and Technological Innovation Toward the Performance of SMEs in Indonesia.

1.2 LITERATURE REVIEW

Quality of Human Resources and SMES Performance

The quality of human resources who have the knowledge of ability in accordance with the main tasks and job functions, which became the main factor to realize the achievement of the performance of the SMEs work unit to the maximum. Various previous findings that the quality of human resources is a factor that has an influence on the performance of an agency or institution both government and organization, so that the quality of human resources that innovative in its field can improve the performance of SMEs. The quality of human resources is the level of HR expertise in implementing an activity / task that is sourced from the education, experience, skills, health and work ethic optimally, so it can serve as the power to move the company to compete (Porter, 1985) in (Sitohang, 2010). Then (Pakpahan, 2001) in (Sitohang, 2010) states that, the quality of human resources is the ability of human resources to conduct an activity because it has the creativity and innovative in applying superior technology. Furthermore, (Schuller, 1997) in (Sitohang, 2010) the level of HR expertise can be grouped into four categories namely (1) Basic Skill, (2) Basic Job Skill, (3) Interpersonal Skill, (4) Broader Based Conceptual Skills. Based on the identification of the four categories of skill level, the format of education and training as an effort to improve the competence / quality of human resources can be determined whether orienting fundamental knowledge for basic skills, skill development for basic job skill or operational interpersonal skill and broader based conceptual skills.

Qualified human resource sources make it possible to make all major business interests into a focus such as cost reduction, productivity enhancement, good cooperation with good communications (Domingo Rene T, 1999) in (Sitohang, 2010). Based on the above understanding can be seen that what is meant by the quality of human resources in this study is the ability of SMEs to improve quality in the field of business that will be generated to enter the free market world to be faced. By having good quality then the existing SMEs can compete and make a superior quality.

Performance (performance) is an achievement achieved by a person for an activity performed within a certain period. Performance is defined as work performance, work performance, work performance or performance (Mulyasa, 2003) in (Sitohang, 2010).

There are two variables that affect the performance of someone (Megantoro, 2015), namely:

1. Individual variables, including attitude, characteristics, personality, physical characteristics, interests and motivation, experience, age, gender, education and other factors.
2. Situational Variables, consisting of physical factors of work, see working methods, conditions and design work equipment, spatial arrangement, and physical environment.

One's performance is influenced by two factors, namely (1) ability factor, consisting of knowledge and skill (2) motivation factor, consisting of social condition, individual requirement and physical condition (Megantoro, 2016) (Faeni, 2016) (Faeni, 2017).

H1: The quality of human resources has a positive and significant impact on the performance of SMEs.

Technology Innovation and SMES Performance

Innovation is a way to continue to build and mengembangkan organizations that can be achieved through the introduction of new technologies, new applications in the form of new products organization of fusion as an aspect of the innovation, in turn, form the arena of innovation (Prakosa and Ghazali, 2005) in (Utaminingsih, 2016).

Ongoing innovation within an enterprise is a fundamental need that will create a competitive advantage, so innovation is an important function of management because innovation will determine a superior business performance. Innovation is becoming increasingly important as a tool of survival, not just growth but also in increasing competition and environmental uncertainty, then technical innovation has a strong and positive influence on company performance (Han, et al., 1998) in (Utaminingsih, 2016).Innovation is a corporate mechanism to adapt to a dynamic environment, therefore the company is required to be able to create new ideas, new ideas by offering innovative products and improved service that can satisfy customers (Prakosa and Ghazali, 2005) Utaminingsih, 2016).

Innovation is a way to continue to build and mengembangkan organizations that can be achieved through the introduction of new technologies, new applications in the form of new products organization of fusion as an aspect of the innovation, in turn, form the arena of innovation (Prakosa and Ghazali, 2005) in (Utaminingsih, 2016). Ongoing innovation within an enterprise is a fundamental need that will create a competitive advantage, so innovation is an important function

of management because innovation will determine a superior business performance. Innovation is becoming increasingly important as a means of survival, not just growth but also in increasingly fierce competition and environmental uncertainty, further technical innovation has a strong and positive influence on company performance (Han et al., 1998) (Utaminingsih, 2016) (Faeni, 2016) and (Faeni, 2017).

H2: Innovation has a positive and significant effect on SME performance.

1.3 RESEARCH FRAMEWORK

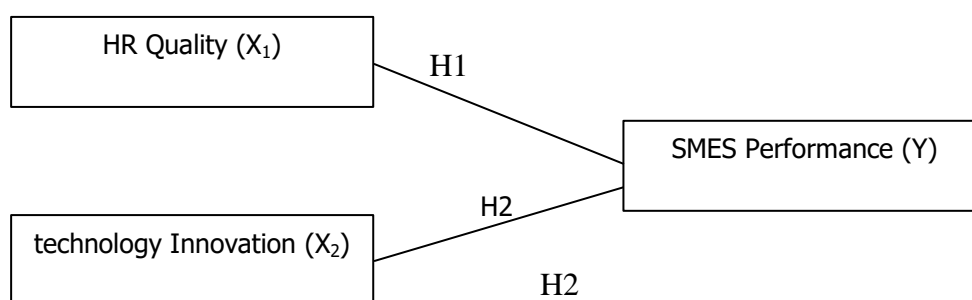


Figure 2.1 Research Framework

Source : Primary Data, 2017

3. RESEARCH METHODOLOGY

3.1 Research Type

The method used in this research is qualitative method. Qualitative method is a research method based on the philosophy of positivism. This method is also called as artistic method, because the research process is more artistic (less patterned), and also called as interpretive method because the data of research result more related to the interpretation of the data specified in the field (Sugiyono, 2015). Determination of the sample in this study using SEM method that is based on predetermined criteria. Data analysis techniques in this study using AMOS SEM analysis tool.

3.2 Population dan Sampling

The population used in this study is SMEs in South Tangerang registered in Industry and Commerce Tangerang Selatan period March-May 2017. Sampling using purposive sampling method using questionnaires obtained a sample of 100. Questionnaires make various questions or statements to be submitted to Respondents (Martono, 2014). Questionnaire is a series or questionnaire arranged systematically, then sent to be filled by the respondent, after the questionnaire is sent back or returned to the officer or researcher (Bungin, 2013).

4. RESULT AND DISCUSSION

4.1 Realibility Test X1, X2 and 6

Table 1 Realibility Test Result of X1, X2 and Y

Reliability Statistics X1

Cronbach's Alpha	N of Items
,787	10

Reliability Statistics X2

Cronbach's Alpha	N of Items
,766	10

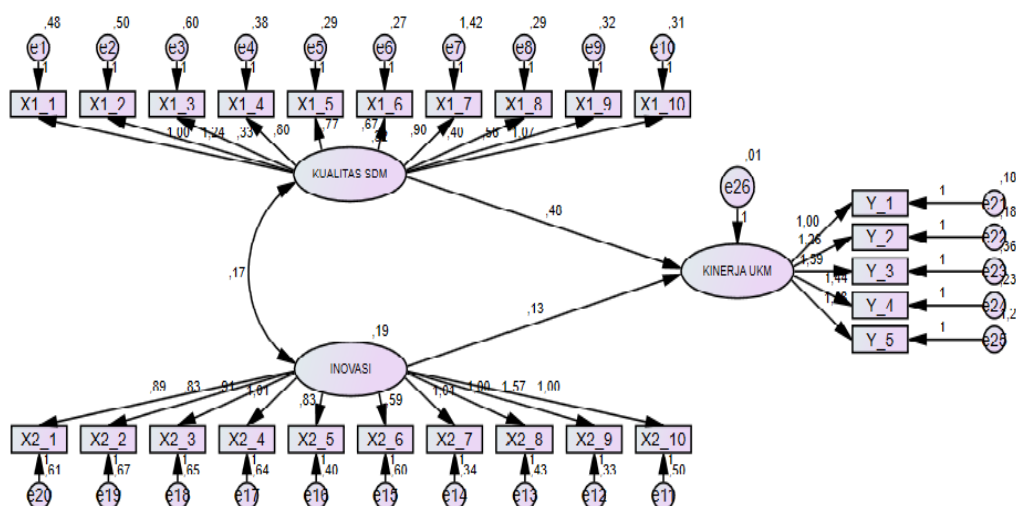
Reliability Statistics Y

Cronbach's Alpha	N of Items
,679	5

Based on Table 1 the above SPSS output shows that all tested variables have Cronbach's Alpha value greater than 0.6 So it can be concluded that the statements in those variables are reliable, in other words the measurement of consistent variables can be trusted for use in research.

4.2 Confirmatory Factor Analysis/CFA

Figure 2 Confirmatory Factor Analysis/CFA



4.3 Goodness-of-Fitted Model

Tabel 2 Goodness-of-Fitted Model Analysis

Statistics	Recommended Values	Result	Remarks
Absolut Fit Measures			
Prob. X ²	Non Significant (p > 0.05)	0.00	Not fitted
CMIN/DF	< 5	3.801	Reasonable
GFI	0.0 – 1.0	0.340	Fitted
Incremental Fit Measures			
TLI	> 0.90	0,00	Not Fitted
Parsimonious Fit Measures			
PNFI	0 – 1.0	0.00	Good

From table 2 can be seen probability value of 0.00 which means above 0.05. Then it can be stated that the data in this model is not suitable or not normal. Values of (CMIN / DF) 2,852 < 5, values of (PNFI) 0.00 < 1, Tucker-Lewis Index (TLI) of 0.00 < 0.90 and GFI value of 0.340 < 1, . Criteria based on CMIN / DF, GFI and PNFI values are considered good, while for TLI is not good.

Goodness of Fit test results have not produced a suitable model then the test is considered less Fit. Furthermore, the researchers will perform the path analysis of trimming model. Trimming Model Path Analysis is a model used to improve a structural model when its beta (exogenous) coefficient is not significant. In this case the researcher removes (arrows) connecting between X1 and X2.

Figure 2 Goodness-of-Fitted Model Modified Analysis

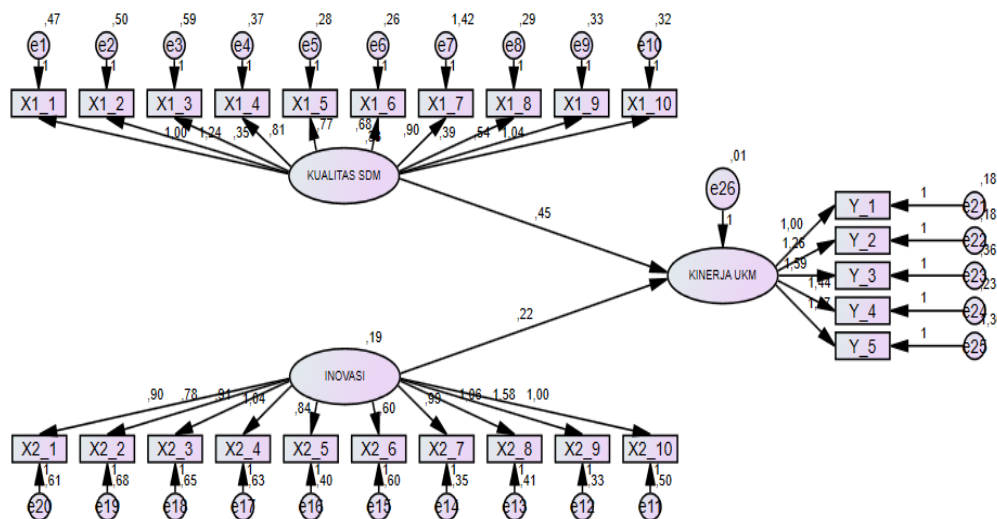


Table 3 Goodness-of-Fitted Model Modified Analysis

Statistic	Recommended	Test Result	
		Goodness-Non Fitted	Goodness-Fitted
Absolut Fit Measures			
Prob. X ²	Non Significant (p > 0.05)	0.00	0,23
CMIN/DF	< 5	3.801	3.801
GFI	0.0 – 1.0	0.340	0.340
Incremental Fit Measures			
TLI	> 0.90	0,00	0,00

Parsimonious Fit Measures			
PNFI	0 – 1.0	0.00	0.00

After the trimming then the model to match the value of 0.23 which means greater than 0.05.

4.4 Validity Test

Tabel 4 Loading Factor Individual Indicators

Variable	Indicator	Loading Factor
HR Quality	Education	1,00
	Knowledge	1,24
	Experiences	0,88
	Expertise	0,80
	Discipline	0,77
	Preserverance	0,67
	Computer literate	0,90
	Organize n Focus	1,40
	Determination	0,58
	Highly Motivated	1,07
Innovation	Consumer Driven	0,90
	Product Benchmarks	0,78
	Iniciate Technology	0,91
	Product Improvement	1,04
Variable	Indicator	Loading Factor
	Product Forecast	0,84

	Sales	0,60
	Product Modification	0,99
	Raw Material	1,06
	Specification	1,58
	Machinery	1,00
SMES Performance	Profit	1,00
	Sales	1,26
	Assets	1,59
	Consumers Needs	1,44
	Product Continuous Improvement	1,48

Based on the above table, all indicators have a loading factor > 0.05 , meaning that all indicators can be used to explain the latent variables. Thus, this model has good convergence validity.

4.5 Hypothetical Test of Line Coefficient Model

Table 5

Testing the influence of exogenous and endogenous variables after in Trimming

Variable	Goodness-Non-Fitted Model		Goodness-Fitted-Model	
	C.R	Probability	C.R	Probability
HR Q – SMES P	4,310	0,00	4,632	0,000
INNO –SMES P	1,338	0,181	2,845	0,004

Hypothesis test is intended to test the effect of an exogenous variable on an endogenous variable or the influence of an endogenous variable on other endogenous variables. In other words, to test the significance of the influence of a variable that affects the influence of another variable. Hypothesis in this research are:

H0: variables that affect, no significant effect on the variables that are affected

H1: variables that affect, have a significant effect on the variables that are affected

The basis of the decision of the hypothesis test is that if the probability value (sig value) > 0.05 then H0 is accepted and if the value of probability (sig value) < 0.05 then H0 is rejected. Hypotheses that can be described based on the results in Table 5 are:

Hypothesis 1: The quality of human resources has a significant effect on the performance of SMEs

Influence Between HR Quality Variables on SME Performance

Table 4.13, the correlation between Quality of Human Resources with SME Performance yields a p value of $0.00 < 0.05$, and its CR value is $4.632 > 2.00$ (CR value limit ≥ 2). Thus, it can be concluded that H_a accepted, meaning the quality of human resources significantly influence the performance of SMEs. The higher the quality of human resources will affect the owners of SMEs to improve the quality of their business in expanding its business and expand its business for even greater.

Hypothesis 2: Innovation has a significant effect on SME Performance

Influence between Innovation variable on SME performance.

Table 4.13, the correlation between innovation and SME performance results in a p value of $0.004 < 0.05$, and its CR value is $2.845 > 2.00$ (CR value limit ≥ 2). Thus, it can be concluded that H_a accepted, meaning that innovation significantly influence the performance of SMEs. The higher level of innovation can have an impact on the increasing performance of SMEs, because this modern era where technology has grown and also the market becomes widespread so that the business competition will be more stringent, so that SMEs should continue to innovate so that SMEs can compete with competitors or even exceed its competitors.

4.6 RESULT AND DISCUSSION

1. Effect of Quality of Human Resources (X1) on the Performance of SME (Y)

Based on the research that has been done, the results of research show that the condition of respondents' assessment of the variables of this study is generally considered quite good. This can be shown based on the research that has been done, the results of this study shows that the quality of human resources have an influence on the performance of SMEs. Partial test results indicate that

the quality of human resources have a positive and significant impact on the performance of SMEs. In other words the better / good quality (HR), the better the performance of its business.

The results of this study are consistent with previous research conducted by (Azkia, et al., 2016) and (Sitohang, 2010) which show the quality of human resources positively affect the performance of SMEs.

Based on the answers of 100 (one hundred) SME respondents in South Tangerang that affect the performance of SMEs are:

1. The level of education that can improve the quality and ability in entrepreneurship.
2. Entrepreneur should not have S1 education.
3. With the work experience you have, can help in improving the business undertaken today.
4. Expertise to improve the quality of products sold.
5. Able to be independent in building a business that has been undertaken so far.
6. Have the ability to operate the computer in support of the business undertaken.
7. Feeling not satisfied when the job is not finished.
8. Happy to compete in entrepreneurship, want success better than others.

Furthermore, the factors that still need to be improved are:

1. Ability to operate the computer in support of my business.
2. Looking for information about other businesses engaged in the field.

2. Influence Innovation (X2) on the performance of SMEs (Y)

Based on the research that has been done, the results of research show that the condition of respondents' assessment of the variables of this study is generally considered well. This can be shown based on the research that has been done, the results of this study shows that innovation has an influence on the performance of SMEs. Partial test results show that Innovation has a positive and significant impact on SME Performance. With the word Innovation can improve the performance of SMEs.

The results of this study are consistent with previous research conducted by (Utaminingsih, 2016) which shows the innovation has a significant effect on the performance of SMEs.

Based on the answers of 100 (one hundred) SME respondents in South Tangerang that affect the performance of SMEs are:

- 1) always check the sales results every week,
- 2) always update with new products,

- 3) always put the products that sell in the market,
- 4) always pay attention to the material to be sold,
- 5) change the quality of materials will increase the competitiveness.

Furthermore, the factors that still need to be improved are:

- 1) always make new products,
- 2) always survey the new product,
- 3) always predict when a product will be exhausted,
- 4) consider the tools used in creating the product,
- 5) using good equipment will create a good product.

5. CONCLUSION AND SUGGESTION

5.1 CONCLUSION

The purpose of this research is to know the influence of Human Resource Quality and Innovation on the Performance of SMEs in South Tangerang. From the formulation of the proposed research problem, it can be seen the effect of these two exogenous variables on the endogenous variables.

1. The results of the hypothesis, data analysis has been done and the discussion has been raised in the previous chapter.
2. Partial test results indicate that the quality of human resources have a positive and significant impact on the performance of SMEs. In other words the better / good quality (HR), the better the performance of its business.
3. The results of this study indicate that innovation significantly influence the performance of SMEs. The higher level of innovation can have an impact on the increasing performance of SMEs, because this modern era where technology has grown and also the market becomes widespread so that the business competition will be more stringent, so that SMEs should continue to innovate so that SMEs can compete with competitors or even exceed its competitors.

5.2 SUGGESTIONS

Based on the limitations of the above research, this research needs better assessment in the future. As to which the authors can be conveyed as a suggestion for further research:

1. Subsequent research is suggested to be able to conduct research with a broader area for research to have broader impact.

2. Further research is suggested to increase the number of respondents so that the results of research can be more accurate.
3. Researchers further expected that the object of research not only include Small and Medium Enterprises (SMEs) but can include Micro Small and Medium Enterprises (MSMEs) and even includes a large business as well.
4. It is recommended to reproduce reference books and journals in conducting this research. Not only ISSN journal only but from other journals like SNA and so on.
5. Suggestions from the authors for further research to develop the research variables, reduce the deficiencies that occur and can explain thoroughly research such as researching other variables such as: creativity marketing strategy, market orientation, motivation.

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