

## Analysis of Factors Affecting the Competitiveness of Small and Medium Enterprises in Gorontalo Province, Indonesia

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**ABSTRACT :** Business world has admitted that SMEs have been recognized to have a big role for development and economic growth in a country. Data from Indonesia Planning Bureau (Bappenas) in 2015 indicate that Gorontalo Province is one of the provinces in Indonesia that has competitiveness that tends to decline year by year. Therefore, it is necessary to improve the competitiveness of SMEs in Gorontalo Province.

The purpose of this study is to determine the factors that affect the competitiveness of SMEs in Gorontalo Province. This study refers to a research model developed by Bappenas (2015), which found that the key factor for SMEs. In this research will be tested input, process and performance factors as well as supported by policy and infrastructure factors and supporting process factors as a moderator variable. The method used in data analysis is the PLS-SEM program and the sample data used by 100 SMEs in Gorontalo province.

The result of this research shows that input factor have positive significant influence on process factor and process factor have positive significant effect on performance factor of SMEs in Gorontalo Province. While the supporting process factor fails in the validity test to be a moderation variable and the policy and infrastructure factors are not significant as moderating variables. The results also show that the research model is changing where the policy and infrastructure factors become the direct factors affecting the process factors.

**KEYWORDS** -SMEs, input, process, performance, policy and infrastructure, supporting process factor

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### I INTRODUCTION

The business world has acknowledged that Small and Medium Enterprises (SMEs) have a very critical role in development and economic growth of a nation. This applies for both developing and developed countries. According to researcher a center of industry and SMEs in Indonesian, SMEs role in a big country is very important due to this sector absorbs most workers and it is also the biggest contributor to the growth of Gross Domestic Products (GDP). In developing countries such as Asian countries, SMEs have a big role in providing work opportunities as well as source of income for people with medium to low income. Tambunan (2014) also wrote that SMEs plays a role in distribution of income and poverty reduction, and development of rural economy.

The same thing also applies in Indonesia. According to a report published by Indonesia Planning Bureau in 2015 that SMEs have a big contribution in diversifying the job opportunities and absorption of workers, and develop the gross domestic products (GDP), as well as providing safety net for low and medium income community to run productive economic activities (Bapenas, 2015). It has been also noted that SMEs is one of the sector that can endure economic crisis in a country. During economic crisis in 1998 in Indonesia, SMEs is one of the sectors that was able to strive and succeed during this time of crisis compare to other big businesses in Indonesia. Even though the SMEs also felt the 1998 economic crisis, this SMEs sector did not go bankrupt rather, they downsized their business as the impact of the economic crisis in 1998, the medium enterprises downsized into small enterprises and the small enterprises downsized into micro enterprises. There were only small numbers of SMEs who were forced to close their business (Pusat Kajian UMKM UGM, 2010). Regardless to these things above, the contribution of SMEs is not yet sufficient to boost the economic growth and to increase people's income. There are various challenges for SMEs regarding their capacity and human resource quality, access to productive resources, and market. Micro Small and Medium Enterprises also need to increase their business endurance within the current business environment which full of increasing competition and fast-changing market demand influenced by innovation and technology advancement.

Therefore, improvement of SMEs competitiveness has become very important for them to be able to compete in the business world in Indonesia. Indonesia is a very big nation. According to Indonesia SMEs competitiveness index, Gorontalo province in 2010 was in the 12<sup>th</sup> rank out of 33 provinces in Indonesia and in 2011 the province position slides down to 19<sup>th</sup> (Bapenas, 2015). Compared to our neighboring province, North

Sulawesi, Gorontalo is a bit better. However, Gorontalo is far behind two other neighboring provinces, West Sulawesi and Center of Sulawesi who sits in fourth and fifth ranks nationally.

Therefore, to catch up with these provinces and considering the potentials of SMEs to boost economic development, Gorontalo province needs to pay more attention on increasing the competitiveness of its SMEs. There have been several studies on how to increase SMEs competitiveness in Indonesia can be made as reference for Gorontalo province. A study by Wuryaningrat (2013) on SMEs in North Sulawesi reveals that to increase SMEs competitiveness can be done by focusing on SMEs ability to innovate by optimizing the SMEs knowledge resources. Rawung *et al.*, (2015) insisted that innovation ability can be improved by strengthening the leadership factor of the owner or the manager of the SME. Competitiveness survey held by Bappenas (2015) reveals that SMEs competitiveness consists of input variables (e.g.: workers sector), process (i.e.: ability to innovate) that increase the performance of SMEs (assessed based on productivity of the SMEs). Tambunan (2014) also described that productivity of SMEs is one of the indicators to assess the performance of that SMEs. From these researchers it can be concluded that in order to gain the expected competitiveness of the SMEs in Gorontalo province, variables that have significant impact on SMEs competitiveness ability have to be understood.

This study adopts the study conducted by SMEs development division in Indonesia Planning Bureau conducted in 2015. However, there are several differences such as in the scale, Indonesia Planning Bureau conducted nation-wide research, hence, it could not describe a region properly. This in its own can be a limitation for this kind of research, because each region has its own issues. Therefore, this kind of nation-wide study was not able to yield the expected result. It is expected from this research, Gorontalo issue of SMEs factors to increased its competitiveness could describe well.

SMEs should have a big role for a nation's economy, however, as it has been mentioned above, there is a problem of increasing the competitiveness of SMEs in Gorontalo, where the competitiveness index in the last years are showing decreasing trend. Therefore, it is interesting to be further studied what factors influence the competitiveness of SMEs in Gorontalo province. Hence, it is expected that there would be a policy product to increase SMEs competitiveness.

## **II LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK**

In the last two-decade concepts to assess performance of economic units have increased. Competitiveness concepts of SMEs also increased. Previously the role of SMEs was only in providing work opportunities and reducing poverty, not it has broadened into source of economic growth and source for GDP. In Indonesia, SMEs plays a very significant role in absorbing workers, develop GDP, and as safety net for community who were affected by the financial and economic crisis that hit Indonesia bask in 1997-1998. Contribution of SMEs in creating GDP in 2011 accounts for 57.60 percent of the total national GDP. In addition, number of SMEs in 2011 in Indonesia was 55.21 million units, with 101.72 million workers. This figure increased 2.57 percent and 2.33 percent from 2010 (Bappenas, 2015).

Yet, this is not sufficient to boost the economic growth and to increase the people's income. SMEs has some downsizes such as, lack of capacity and lack of human resource quality due to level of education that are mostly only secondary school graduate (Wuryaningrat, 2013). Limited access to productive resources (capital, raw materials, information, knowledge, skill and technology) is also one of the constraints for SMEs to succeed (Vinding, 2005). These obstacles had caused SMEs who are still dominated micro enterprises finds it hard to grow into a bigger business (level up), or strive in sustainable productive business. This is evident in the productivity gap between big business and SMEs, and the downward trend of non-fuel and gas contribution. The data from Bappenas (2015) on productivity per unit of SMEs were IDR 24.80 million in 2011, whereas productivity of SMEs workers in the same year was 13.46 million. As comparison, productivity per unit and per workers of big companies in 2011 was IDR 203.51 billion and 348.57 million, respectively. In addition, SMEs contribution on non-fuel and gas export in 2011 was only 16.44 percent. This value is far below average contribution of SMEs sector in non-fuel and gas export during 2005-2007 period that was 20.0 percent.

In the context of SMEs, amidst many of the SMEs problems mentioned above, there is a big potential of SMEs to continually increase their competitiveness. SMEs with its small number of workers and simple organizational structure and their less involvement in bureaucracy are easier to absorb and distribute knowledge (knowledge sharing) into the organization, which in turn will have positive influence on innovation ability which will have impact on the increase of SMEs competitiveness (Ayyagari, 2006).

Big companies do have some extra points (e.g.: bigger capital, and better human resource) compared to SMEs sector, hence they can be innovative companies (Rogers, 2003), however, innovation ability of big companies is not problem free. Big companies with more complex structure and often tightly connected to bureaucracy have often made big companies unable to optimize their innovation ability (Barney, 1991; Acs *et al.*, 1997). Davenport and Prusak (1998) added that development of companies' knowledge depends on the size of the company. The bigger the size of the company which evident in large number of its employees, the harder

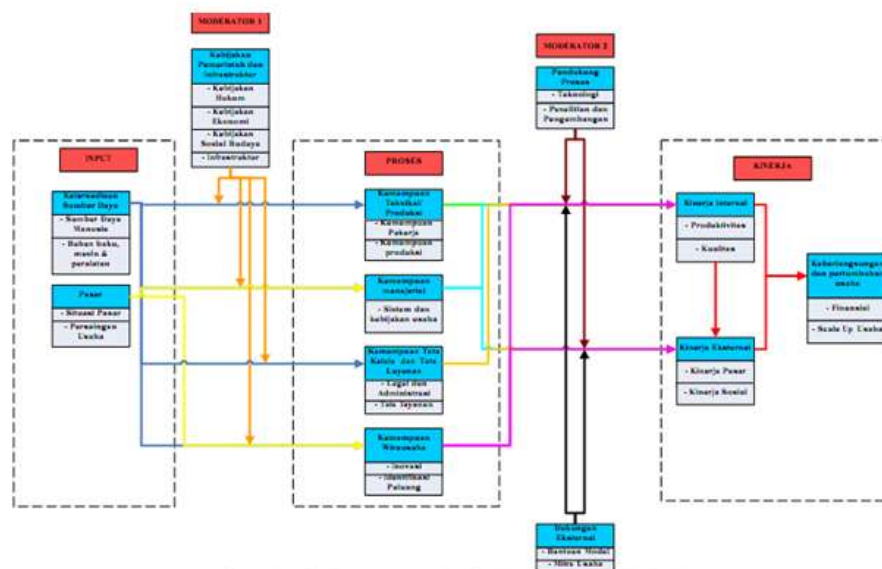
it is to optimize the knowledge that it has. Big companies often depend on small companies to support its innovation (Barney, 1991). According to Acs *et al.* (1997) small companies often considered as inventors or agent of change for innovative companies (big companies).

Gál (2010) explained that there is two components that have to be present for describing the competitiveness of a company namely: (1) companies competitiveness cannot be separated from competitiveness of the product produced by that particular companies, due to both of those things are influenced by price and non-price factor; and (2) companies' competitiveness is a combination of factors that shape the competitiveness itself that need to be evaluated over time based on the dynamic change. General indicators used to measure competitiveness of a product are market share and market coverage, production volume growth and marketing, product value, and consumers' responds.

Li (2011) proposes a definition on competitiveness which he made interchangeable with the term competition. This definition describes competitiveness as a competition among parties and arises when two or more parties compete for something that could not be obtained by all. Li (2011) added that competition comprises of four main dimensions, namely competitor, competing object, competitive capability, and competed result. Based on these dimensions, each businessman will try to develop their competitive ability through creation of products or services as competition object. From this competition, Li (2011) will create a repetition among each businessman to compete and achieve certain point which described as the result of competition. Therefore, each competitor will develop their specific competitiveness or in other words they will try to find the essence or the uniqueness of each of their business.

Previous research had tried to link three approaches to competitiveness concepts above. Man, Lau & Chan (2002) proposed a model of competitiveness as sustainable process. Further, Buckely *et al.* (1988) described this model within the context of SMEs, where this business has to pay attention to three competitiveness variables, potentials, process, and performance. Potential variable can be described as the extent of competitiveness and ability to organize. Meanwhile, process variable reflects the ability to manage the tasks; whereas, the performance variable is an explanation of factors that shape it such as, (1) character, behavior, skill and knowledge of the business owner; (2) character of the sector, market, strategic environment, etc.

From the description above, it is clear that causal model of SMEs potential variable, process variable, and performance variable is predicted to be able to describe the competitiveness of the SMEs itself. This is in-line with the conceptual model described in the report of SMEs competitiveness released by Bappenas in 2015. This model is described in the following Figure 1.



Source : Bappenas ( 2015)  
Figure 1. Conceptual Model

As seen at figure 1, there are five main variables in this research, namely input, process as independent variables, and performance as dependent variables. Beside that there are two moderating variables which is policy and infrastructure and process supporting.

The input variable consists of availability of resources and market needed by the SMEs to execute its production process. The category of resources availability as direct potential environment comprises of human

resource as input and raw material, engine, and equipment. On the other hand, market category is indirect potential environment which focused on market situation and business competition.

Process variable is activities to change the input into a product which determine the business performance. The categories in this dimension are technical ability/production, managerial ability, governance and service ability, and ability to do business. Technical ability/production ability and managerial ability is a direct process or the factor that directly influence the business performance. Technical ability consists of worker's ability factor and production capacity, whereas managerial ability consists of business system and business policy. This category is influenced by availability of resources in process dimension, whereas, the managerial ability is influenced by the availability of resources and market in process dimension. On the other hand, governance ability and service delivery ability and ability to do business are indirect process, because these two categories can indirectly influence business performance of a company. Governance and service delivery ability consist of legal and administrative ability, whereas, ability to do business consists of ability to innovate and to identify opportunities. Governance and service delivery ability are influenced by the availability of resources. However, the ability to do business is influenced by availability of resources and market in process dimension.

Finally, there was performance variable, the measurement of company's performance, which consists of internal performance, external performance, business sustainability and business growth. Internal performance category and external performance category are the indirect benchmark of performance. Internal performance consists of productivity and quality, whereas external category consists of market performance and social performance. Both internal and external performances are influenced by all categories in process dimension. Meanwhile, external performance category also influenced by internal performance. The third category is the sustainability and the growth of business which consists of financial and increase of business scale. This category is influenced by internal and external category

The first moderating variable consists of government policy category and infrastructure. Government policy, availability and condition of infrastructure can increase the effectiveness and efficiency of factors in other input dimension toward the micro, small and medium enterprises production process. This category consists of legal policy, economic policy, socio-cultural policy, and infrastructure.

The second moderating variable consists of process supporting category and supporting for technology usage category. Process supporting category is considered as part of the second moderating variable because it has more influence on the category on process dimension than the company's performance. This process supporting category consists of technology, research, and development.

### **III RESEARCH METHODS**

The population in this study is SMEs in Gorontalo province. Considering the large number of the population, this study uses the sample to represent the population. The samples are taken using purposive sampling to ensure that the samples are suitable with the objective of the study (Cooper & Schindler, 2010). The samples criteria in this study are as follow:

- a. The SMEs have been existing for more than 3 years
- b. The SMEs have 5-99 employees
- c. The SMEs work in production or manufacture sector and already have the business license

The unit analysis in this study are organizations represented by the owners or the managers of the selected SMEs in Gorontalo province. The reason for selecting these owners or managers to represent their SMEs is because they are the main actor in their duties and responsibilities to develop the company. Therefore, by studying the SMEs managers or owners' perception it is assumed that sufficient information on the whole organization can be obtained. This idea is supported by Johannessen which stated that individuals that understand most about company's innovation is the director or in this context the SMEs owner or manager.

The primary data are collected using the closed questionnaire. These questionnaires consist of statements on the dimensions developed in this study. All input, process, and performance variables along with two moderating variables were assessed using the questionnaire developed by the SMEs expert team (Bappenas, 2015). The statements in this questionnaire uses Likert scale of 1-5 (1=very rare to 5=very often/almost always) to refer to the frequency of respondents uses the choices available on each statement.

To increase the level of respond in data collection, the questionnaire will be sent directly to respondents and they were asked to provide the answer immediately. This ensures the time line for data collection and high level of responds; however, the consequence is that this method is costly.

To determine what factor influence the competitiveness of SMEs in Gorontalo, the Confirmatory Factor Analysis (CFA) was administered. The validity test consists of face and content validity as well as convergent and discriminant validity of the constructs. These validity tests are important to show the extent on which the research instrument is able to assess the research object appropriately (Cooper & Schindler, 2010).



Face and content validity is administered by several academics and experts in SMEs. Face and content validity are judgmental. The tested questionnaire then distributed to several SMEs. Following the face and content validity tests, the statistical validity test then conducted. The next validity test is the *Confirmatory Factor Analysis* (CFA) which consists of convergent and discriminant validity. The validity of construct in CFA is administered to find out the extent of the instrument used in the test reflect the theoretical construct proven through empirical evidence (Hair *et al.*, 2010; Cooper & Schindler, 2010).

The important consideration in determining the convergent validity is that variables items are loaded within the construct. This can be assessed from the loading factor value in a factor (Hair *et al.*, 2010). The next consideration is the value of Average Variance Extracted (AVE). Instrument items are said to be convergently valid when the loading factor  $\geq 0.5$  and has no cross-loading problem and the Average Variance Extracted (AVE)  $\geq 0.5$  (Hair *et al.* 2010).

Reliability test is intended to test whether the instrument used in the research is reliable to be used in different settings and different respondents (Cooper & Schindler, 2010). According to Hair *et al.* (2010) reliability is one of the indicators to assess the convergent validity of an instrument. An instrument is said to be reliable when it has measurement accuracy and precision over time. In this study, the reliability test is administered through internal consistency of Cronbach alpha  $\geq 0.7$  (Nunnaly, 1976 in Hair *et al.*, 2011).

The data analysis technique used in this study is partially least square-based (PLS) *Structural Equation Model* by using the SmartPLS 2.0. Hair *et al.* (2011) similarized the PLS as the “silver bullet” because of its statistical strength to test the hypothesis with relatively small samples. This is different with the covariant based SEM (CB-SEM) that needs large samples (Hair *et al.*, 2010).

#### IV RESULT AND DISCUSSION

##### Face and Content Validity Result

The first step in this CFA test is confirming the suitability of the instrument to be understood by the research respondents. The face validity test is administered through discussion with several academia and experts on management and SMEs. It reveals that each items of statement in this research instrument is valid to be further used to test the competitiveness of the SMEs. This face and content validity then followed by discussion with five successful SMEs owners in Gorontalo to confirm whether each items of the statement can be understood, hence it reflects the reality of SMEs in Gorontalo. It resulted on a recommendation to simplify the language used to make it more familiar to the people of Gorontalo. Therefore, following the language simplification of the statement items, the questionnaire items were discussed again with the SMEs practitioners in Gorontalo. It was then agreed that the questionnaire is suitable to be distributed to two hundred respondents of SMEs in Gorontalo.

##### Data Collection

The fixed questionnaire then sent to two hundred owners or managers of SMEs in each district and city in Gorontalo province. Due to large number of respondents is in Gorontalo city, seventy percent of the questionnaire are sent to the respondents in Gorontalo city. The time limit for the questionnaire to be sent back to the researcher was one and a half month after its distribution, from May to mid-July. Following this deadline, out of the 200 questionnaires sent to the respondents, only 125 questionnaires or 62.5% were returned. However, only 100 questionnaires were filled. Twenty-five incomplete questionnaires had more than 15% of missing data. Hair *et al.*, (2010) recommends that if the missing data are higher than or equal to 15%, it should be eliminated. Due of one and half month period of collecting data only have 50% real response rate, it still considered qualified due of PLS-SEM data analysis. PLS-SEM considered ‘silver bullet’ even with low sample size (minimum 30), hence 100 collected data were qualified to proceed to the next step, which is statistical analysis confirmatory factor analysis (CFA).

##### Business and Respondents’ Profile

Based on the data in table 1, seventy-one owners or managers of SMEs in production sector in Gorontalo province who participate in this study are males. Large proportion of them are in productive age (40 years old or above). Forty of these respondents are high school graduates and followed by university graduate (25 people)

Table 1. Respondents’ Profile

Dimension	Category	Number of respondents
Sex :	a. male	71
	b. female	29
Age Range	a. <25 Years old	13
	b. 26–30 Years old	12
	c. 31-35 Years old	16
	d. 36-40 Years old	15
	e. > 40 Years old	44
Level of education	a. Elementary School	10

b. Junior high school	16
c. Senior High School	40
d. Diploma	8
e. Bachelor Degree	25
f. Others (S2)	1

Source: Analysis Data (2017).

Based on table 2 below, it is clear that most of the SMEs work in handicraft sector and general business (40 people) and food processing (44 people). Large number of SMEs who work in production sector is located in Gorontalo city (49 people) where their workers usually live in the surrounding area of their business place.

Regardless to the variation of workers in the sample SMEs, in average the number of full-time employees are 11 people and part-time employees in average are 13 people. From this number of employee it is clear that the businesses are classified as small enterprises (BPS Classification). The SMEs have average assets ranging from 5 to 50 million rupiah (50 people). In addition, the monthly turnover of the SMEs who operate in production sector is below 50 million rupiah (63 people). Based on this turnover, the SMEs who operate in production sector in this study is categorized as Small enterprises.

**Table 2. Business Profile**

Dimension	Category	Number of Respondents
Business Sector	a. Handicrafts and General	40
	b. Food processing	44
	c. Garments and Skin	10
	d. others	6
Location	a. Village	31
	b. City	49
	c. Uptown	20
Average number of employees	a. full-time	11
	b. part-time	13
Number of assets (in the last 2 years)	a. <5 million	20
	b. 5 to 50 million	50
	c. >50 to 100 million	15
	d. >100 to 150 million	5
	e. >150 million	10
Monthly turnover	a. <50 million	63
	b. >50 to 100 million	11
	c. >100 to 150 million	10
	d. >150 million	16

**Confirmatory Factor Analysis.**

Following the face and content validity test, the next step is statistical step to analyze the factor by using confirmatory factor analysis. The steps consist of assessing the loading factor for each item of statements. An item is considered appropriate when the loading factor is at least 0.5 otherwise it has to be dropped. For the construct assessment, bigger than 0.5 AVE is recommended value (Hair et al., 2010).

**Input Factor Variable**

The input variable consists of four dimensions, human resources, raw materials and equipment, market situation and business competition. Following the loading factor assessment, there were only three dimensions left, the human resource, raw material, and competition with the AVE value of 0.555 Cronbach alpha 0.866. The detail is presented in Table 3 below:

**Table 3. Validity and Reliability test of the Input Variable**

Indicator	Number of items	Convergent validity		Reliability
		Loading factor	AVE	Cronbach alpha
Human resources	2	0.582 and 0.783		0.555 0.866
Raw material	3	0.675, 0.786, 0.809		
Competition	2	0.772 and 0.832		

**Process Factor**

Process variable consists of five dimensions of indicators, namely technical ability to work and produce, managerial ability, governance, entrepreneurship ability, and opportunity identification. Following the loading factor assessment, there were only three dimensions that are valid, namely, governance ability, entrepreneurship ability, and opportunity identification. These three items have above 0.5 loading factor and the AVE value was 0.520 and Cronbach alpha value was 0.833. The detail is presented in Table 4 below:

**Table 4. Validity and Reliability Test of Process Variable**

Indicator	Number of Items	Convergent Validity		Reliability	
		Loading factor	AVE	Cronbach alpha	
Governance	4	0.678, 0.622, 0.704, 0.825		0.520	0.833
Entrepreneurship ability	2	0.722 and 0.785			
Opportunity identification	2	0.740 and 0.782			

**Factor of SMEs Performance**

For SMEs’ performance variable who previously has four indicators, market performance, social, financial, and scale up, was left with only two indicators, financial performance and scale up indicators. These two are the only indicators with bigger than 0.5 loading factor. The two indicators have AVE 0.588 and Cronbach alpha of 0.824. The detail is presented in Table 5 below:

**Table 5. Validity and Reliability test of Performance Variable**

Indicator	Number of Items	Convergent Validity		Reliability	
		Loading factor	AVE	Cronbach alpha	
Financial performance	3	0.683, 0.627, 0.714		0.588	0.824
Scale up	2	0.722 and 0.785			

**Moderating Variable: Policy & Infrastructure and Process Supporting**

For moderating variables, policy and process support, only policy variable that was pronounced as valid due to its 0.513 AVE value and the loading factor of its questionnaire that was 0.5. Meanwhile, moderator support process variable obtains one item instrument and AVE score for 0.521. Regardless, to its validity, single item measurement is not valid as assessment tools. Hair et al. (2012) mentioned that in PLS-SEM at least there should be two items used as measurement tools. This is also the reason for other instruments test who yielded two items as measurement indicators. The detail is presented in Table 6 below:

**Table 6. Validity and Reliability test for Moderating Variable**

Indicator	Number of items	Convergent validity		Reliability	
		Loading factor	AVE	Cronbach alpha	
Policy	5	0.653, 0.672, 0.717, 0.795		0.513	0.767
Supporting Process*	1	0.521			

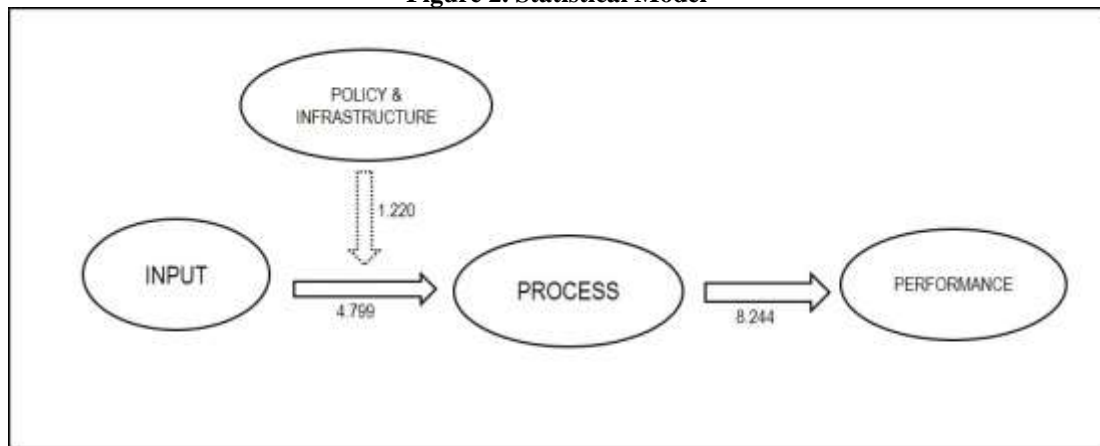
Note: \* not valid

Based on the validity test using the Confirmatory Factor Analysis which refer to the convergent validity value (AVE) and reliability value (Cronbach alpha) it is found that the causality factors that influence the competitiveness of SMEs in Gorontalo are input variable with its human resource availability, raw material and level of competition indicators, which indicated an influence on process variable with service governance, entrepreneurship ability, and opportunity identification ability as its indicators. In turn, these will influence the performance of SMEs itself. The supporting process which later can either strengthen or hamper the SMEs competitiveness is policy factor. Therefore, policy factor is a moderating variable between input and process variables. The correlation pattern among variables is presented below.

In the context of this research, availability of sufficient number of employees and easiness to obtain skilled workers, and availability of needed good-quality raw material, and conducive level of competition are input for SMEs that in turn is expected to have positive influence on production process, which will create better service governance, create new innovative products. These factors are expected to have positive influence of the performance of SMEs. Through the support of government policy, it is expected that SMEs production process to create SMEs with better performance can be achieved. In reverse, it the government policy factor is unresponsive, the production process of SMEs will be hampered and so is their performance.

However, this correlation pattern was only a hypothesis that needed to be confirmed through statistic test. The statistical test of the hypothesis above is presented in figure 2 below:

**Figure 2. Statistical Model**



The figure above describes that input variable has positive and significant influence on process variable. This is evident in the t-stat value 4.779 which is higher than the t-stat recommendation value 1.960 (Hair et al., 2010, 2011, 2012). It is later revealed that process also positively and significantly influences the performance of SMEs in Gorontalo province. Statistical test using smartPLS 2.0 m3 shows that the t-stat (8.244) is higher than the t-value (1.960). However, it turned out that policy and infrastructure variable do not have the expected moderating effect due to their t-stat (1.220) value which was below the t value (1.960).

Referring to the figure 2 above, which shown that policy and infrastructure factors were rather significant in direct relation, it can be said that there is a strong possibility for policy and infrastructure to become predictor variables. Logically, each package of government's policy and infrastructure can significantly influence the business operation. When the issued policy can provide direct easiness for SMEs to operate their business. In other words, the statistical test of the research model above becomes rational and it could change the model of further research.

## V CONCLUSION

By referring to the research findings and discussion above, it can be concluded that factors that should be considered by the government of Gorontalo in developing the SMEs competitiveness is the input, process, policy and infrastructure factors. In which these factors are proven to influence the performance of SMEs competitiveness in Gorontalo province. The input factor that should be reassessed by the government is the easiness of access for these SMEs owners to access the raw material. In addition, it is also noted that government attention on the ability and the human resource skill. This can be done through access to affordable qualified formal education (like scholarship) from compulsory education level to higher education. In addition, government can also strengthen vocational education by strengthening the cooperation between vocational high school and higher education institutions, hence, the output of this vocational school will be focused on mastering skills needed by the job market.

Process factor is similarly important for SMEs to have better performance. Therefore, it should also get appropriate attention from the SMEs owners and government; hence service management for the consumers can be improved. Regardless its size of business, consumers' service management has to be professional and able to make use of current technology. This is important for SMEs to be always innovative in meeting the demand of its consumers and market. When business is unable to adjust to the consumers and market's needs, then it will be unable to strive and success among many of its competitors. For instance, the emergence of online transportation as adaptation of consumers' demand of needing secure, responsive and comfortable means of communication.

Current policy and infrastructure also suspected to be able to help the operation of SMEs business. This factor is the factor that changes the research model. As it is commonly known that the research who uses structural equation model, either variance or covariance-based, has the benefit of modifying the research model to adjust with the condition in the field as it is the case in this study. Policy and infrastructure can possibly bring direct positive benefit and not as moderating variable. This is suspected due to when policy is siding with the SMEs then the direct benefit will be felt and so is the good infrastructure. For instance, when government issued the credits for small businesses (KUR), with low interest and without collateral), the benefit can be directly felt by the SMEs where they can access financial facility to increase their business capital. And so is infrastructure such as, when road access from city to rural area is opened, the SMEs can feel the positive direct impact where their business operation becomes more efficient.

There is several limitations in this study. It only obtained small size of samples (100 samples) out of thousands



of SMEs in Gorontalo province. However, through the usage of PLS-SEM model, this study was robust against the classic assumption and it remains accurate regardless to its small size of samples. Nevertheless, this small size of samples can still be considered as less reflecting the real data in the field. In addition, cross-sectional research can also be a limitation for this research because the data were only taken in certain time period. The findings in this study need to be reconfirmed in the following year, where there has been a new research model based on research result that needs further research to validate the result of previous research in order to sustainable answer the research problem.

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