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Standardization, Comercialization and Productivity on Doormat Creativity Industries Competitiveness

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Abstract

In the era of industrial revolution 4.0, industrial products are required to be able to have good product standards and productivity, so that the commercialization of industrial products is more adaptable and accepted by the market. If industrial products do not have standardization and good productivity, then industrial products will not be able to compete in the domestic market and global markets. The purpose of this research is to describe the influence of standardization, commercialization and productivity on the competitiveness of creative industries. This paper used quantitative descriptive research employs a path analysis. The main source of data used is primary fundamental microeconomic data, with 125 units of doormat creative home industry surveyed through simple random sampling as its respondents. The research results show that there is relatively strong and significant correlation and positive and significant influence between standardization, commercialization and productivity on the industrial competitiveness, either partially or jointly. Productivity is the biggest contributor to total correlation and influence to enhance industrial competitiveness.

Key words : Standardization, Commercialization, Productivity and Competitiveness, Creative Culture Industry.

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INTRODUCTION

The current challenges to world research are microeconomics, reformation and productivity as the keys to understanding of competitiveness, (Porter, 2002, 2005, 2012; Prasetyo, 2017b). The productivity of "local" industries very important for competitiveness, not only export industries, (Porter, 2002). Competitiveness is rooted in microeconomic fundamental, of which manifestation is with company sophistication in industry and the quality of its microeconomic business environment. The importance of micro-reformation is needed to enhance productivity and prosperity, (Porter, 2005) (Ketels, 2006). The performance of regional economy is greatly influenced by local group power and innovation vitality and plurality, (Porter, 2003). Productivity eventually depends on enhancement of microeconomic ability and local competition sophistication, (Porter, 2012). In many developed countries with mostly appropriate macro policy, micro reformation is the key to reducing unemployment, improving export, economic growth and enhancing life standard, (Porter, 2005). Improvement of innovation and productivity is believed to enhance the competitiveness and growth of state's economy, (Wysokinska, 2003; Porter, 2004; Atkinson, 2013; Chun, 2015; Brem, 2016; Terzic, 2017; Prasetyo, 2008, 2017b). Labor productivity and economic growth are the key factors to maintain and enhance the states competitiveness in global market, (Emsina, 2014). A higher productivity offers better advantage and leads to more successful enhancement of economic competitiveness entirely and balanced socio-economic development in the open market, (Wysokinska, 2003). Novelty in this article is reformation of the meaning of competition and competitiveness built through efficient, effective and adaptive local industrial productivity method good standardization and commercialization based on regional microeconomic fundamental data.

Standardization is the key factor of a trade policy which contributes to reduction of trade technical barriers, (Reenen, 2011). Standardization is not only required this time for the success of a state's economic growth, (Chopra, 2018). Standard products help maintain product quality and reduce production costs, and may improve productivity, business competitiveness and economic growth, (Butter, 2007; Filip, 2010; Swann, 2010; Maunula, 2014; Prasetyo, 2017a, 2018a; Chopra, 2018; Mor, 2018). An appropriate design and application of product standard may substantially reduce transaction costs, increase trade and growth of productivity and economic welfare, (Butter, 2007).

The results of research conducted by (Maunula, 2014) explain commercialization of standard products often requires big investment in production line, since business depends on economic scale. She also proposes that in smaller scale, standard wooden product may be profitable to manufacture only if its added value is high enough to secure the profitability. Therefore, the product must be unique and innovative. To compete with standard product manufactured in small scale is very difficult, like business with no economic scaled benefit or high added value of customized item, (Maunula, 2014). Competition will not occur automatically in the market, but requires in many fields of governmental policy, since productivity enhancement will be better achieved by

eliminating competition barriers, (Reenen, 2011). Standardization has caused the prices of highly performing products to continuously decline for the sake of consumers.

The main problem is that industries in Indonesia is currently experiencing de-industrialization and reduction of productivity as the result of economic inefficiency, (Prasetyo, 2011; 2017b). Most of industrial countries have their productivity de-accelerated, which become a serious concern of policy makers, (Vasile, 2006). Moreover, Vasile (2006) conducts a study focusing on the strategy to enhance the framework of productivity growth through competition. The research results show that the positive effect of static and dynamic efficiency gives the government strong reason to promote competition as a way to ensure efficient economy and enhance productivity. According to CMA (2015) there is empirically strong evidence which shows that competition may promote higher productivity. The evidence shows that competition promotes productivity in three main ways. First, in a company, competition serves to be a disciplinary tool, which puts pressure on company managers to be more efficient. Second, competition ensures that higher productive companies increase their market share by sacrificing those lower productive. These low productive companies may quit the market, and be replaced by companies with higher productivity. Third, and maybe the most important, competition encourages companies to innovate, generate new products and processes which bring change of pace in efficiency, (CMA, 2015).

The urgency of this research is that the stricter competition matter faced by the industrial world in the digital era is not only based on the strength of efficiency factor, but also to creativity- innovation, productivity, effectiveness, and adaptation, (Pasetyo, 2018a; 2018b).

However, to the knowledge of the author,standardization and commercialization matter from production in relation to productivity and competitiveness has not been much studied yet. Therefore, the novelty the purpose of this research to analyze the influence of; standardization and commercialization and productivity on the competitiveness of industries, on the basis of reformation of fundamental microeconomic data.

The issue, a healthy competition is believed to be increasingly able to encourage better productivity rate, and the productivity is the main key to enhancement of competitiveness, (Porter, 2002; Wysokińska, 2003; Prasetyo, 2017b; Santos, 2018). On the contrary, productivity may become a good key to strengthening competition, (Mayer, 2014; Cieslik, 2018). Meanwhile, (Backus, 2011, 2014; and Wang, 2014) have proven that there is causality relationship between competition productivity. However, without having to be contested with other opinion, the fundamental of this research is built on the rationale that productivity is the main key to enhancement of competitiveness, (Prasetyo, 2017b). Theory works in the relationship between asymmetric information and imperfect limited competition, (Crawford, 2018). In economics theory, standardization may impose positive and negative effect on industry to which it is applied. The research conducted by (Poksinska, 2007) states that there is no clear answer whether standardization have positive

or negative consequence on work condition. The impact of standardization on work condition depends on various factors in respective industrial organization. Generally, there are three main variables; (1) content of standardization, (2) standardization process, and (3) standardization level. According to the research results, (Swann, 2010), standardization may be beneficial to company, and wholly serves to be the key to economic infrastructure; may activate innovation, serves to be barrier to entry, and be able to reduce uncertainty risk, helps credibility given and be able to enhance competition. Swann (2010) asserts that the role of standardization may result in lower transaction cost and reduce production cost (efficient), prevent hazard and reduce risk and be able to more quickly and better absorb change rate (adaptive), lead to shorter and easier production, and increasing economic activities (effective). Standardization is the key factor to trade policy which contributes to eliminate technical barriers in trade, (Reenen, 2011). Whether standardization succeeds or fails depends on institutional and arrangement process (Cargill, 2011; Egyedi, 2007). To commercialize new products resulted from standardization is the need of every industrial organization in order to remain competitive in the market. Small and micro enterprises are currently facing stricter competition in the dynamic business environment where an effective commercialization process may secure their business survivability and provide main benefits such as enhancement of profit turnover and market share, (Pellikka, 2014). Based on the Scientific Report of Australian Innovation Mapping (2003) the definition of commercialization in research refers more to process which generates commercial return

through income, capital gains, license income, product sale income and new process of research conducted. Commercialization is a series of activities to change an innovation to final product or service from which economic benefit may be obtained (Speser, 2008; Meyers, 2009; Pekmann et al., 2013; Gbadegeshin, 2018). Literature review has revealed that not all innovations may be commercialized, since small ones are not interesting and big ones are expensive. If no one wills to pay for a technology innovation, the innovation cannot commercialized, (Speser, 2008).

Technology based corporate commercialization has been acknowledged to play increasingly significant role in economy development and deemed to be the growth machine to accelerate industrialization, quickly generate income, accumulate wealth and create employment, (Ismail, 2013). Commercialization is a measure towards new product or new service development, (Aslani, 2016; Prasetyo, 2018a). According to Chis, (2017), commercialization may cause better delivery of values who want acceleration. With commercialization and standardization, price will become cheaper, since commercialization may lead to better competition and give users more choices. The findings of research conducted by Chun (2015) include; (1) Company innovation and commercialization productivity are balanced and show relatively low innovation productivity, (2) Labor union has positive effect on commercialization productivity, (3) Workers are a factor which influences determines the commercialization productivity of manufacturing companies.

The industrial organization theory emphasizes the mportancei of enhancing product's market competition as a medium to

enhance productivity. The results of research conducted by Clerides (2012) have tested the theoretical relationship between competition and productivity and review historical evidence of the effectiveness of measures to enhance competition in enhancing productivity and enhancing economic growth. The research is concluded by describing the agenda in structural reformation for Cyprus's economy. The results of research conducted by Clerides (2012) in economic and institutional theories show that competitive market encourages higher productivity and efficiency. Well-designed structural reformation agenda may make economy more efficient and competitive and appropriate to face any challenges ahead, (Clerides, 2012). Therefore, empirical theories and studies of creativity-innovation, productivity and competitiveness need to be understood further.

The term "competitiveness" has conceptually been used in various ways at corporate, industrial, regional and national levels. The term "competitiveness" is one concept mostly used in economy, but is inappropriate, since there is no generally accepted definition of competitiveness, (Siudek, 2014). The appropriate definition of competitiveness is productivity, (Porter, 2002, 2005, 2012). Aiginger (2015) defines regional product competitiveness as the ability of a region to produce target outside GDP. The purpose of competitiveness assessment is to be information of more effective policy design to enhance prosperity level which may be achieved by a location, (Ketels, 2013, 2016). In the globalization era, the territorial competitiveness matter becomes more important for local development policy,

(Camagni, 2002). The important thinking framework to explain is that it is also important to accurately and consistently measure aggregate productivity rate. However, this research tends more to measure productivity rate in certain unit and tends more to study the relation of productivity with relative efficiency rate of each industrial companies in a location as a microeconomic measuring dimension. In addition, it also studies the relation of productivity with total cost and advantage on the competitiveness rate of existing industries as an indicator of balance in macroeconomic dimension.

According to Ketels (2016) there are two groups of competitiveness definitions. *First,* competitiveness as viewed as a location unit cost rate, which encourages industrial companies to successfully compete in global market. This first definition is important for organizations mandated to track and manage macroeconomic imbalance, thus this first definition tends more to have macroeconomic competitiveness dimension. However, this first definition has been many criticized. *Second*, competitiveness as viewed as location productivity rate, which encourages location life standard, which is individual life in the location which may be maintained, (Delgado, 2012). This second definition is important for organization like competitiveness council which should focus on long-term growth and prosperity level, thus this definition tends to microeconomic competitiveness dimension. This second definition has not been many, fundamentally criticized. According to this literature, it is clear that productivity is the main cause of difference in prosperity in various locations. Based on the literature review, the definition of competitiveness in

this article tends more to refer to the second (microeconomic) measuring dimension. According to Porter (2012), microeconomic competitiveness dimension is measured according to; Quality of national business environment; Development of cluster status, and Sophistication of company's operation and strategy. Meanwhile, the macroeconomic competitiveness dimension is measured according to; Social infrastructure and political institutions, and macroeconomic policy.

Mayer (2014) has built a theoretical model highlighting the competition in all markets which influences the range of products exported and company commercialization. Stricter competition in export market encourages industrial companies to reduce their export sales and lead to best performing products. Mayer (2014) asserts that this productivity effect has big potential in competition. Meanwhile, CMA (2015) has found empirical and strong microeconomic evidence that competition enhances productivity.

There are two evidences; first, study which uses micro level data to test the relation between competition and productivity in all product markets. The purpose of this literature is to explain that market with higher competition rate tends to show higher productivity rate. Second, study which observes change in competition at market level all the time, either following deregulation or other exogenous factor which may cause change in competition rate. The purpose of this literature is to explain the impact of competition on productivity, including investigating the change of role in product market on productivity growth. Other evidences show that competition rate may

influence productivity and aggregate growth, (Aghion, 2008; Arnold, 2011). The relationship between competition and growth is inverted U-shape, (Aghion, 2005 and Onori, 2013). Empirical studies show evidence that there is positive and significant between competition and industrial companies' performance, (Wang, 2014). Backus (2011, 2014) and Wang (2014) have proven that there is causality relationship between productivity and competition, with X-inefficiency as stronger explanation. Research model which focuses only on manufacturing industrial sector shows that there is positive linear effect of competition on innovation and positive effect of competition on productivity, (Santos, 2018). According to Atkinson (2013), although separated, innovation, productivity and competitiveness remain interrelated to achieve prosperity. He asserts that, however, productivity is the most important determinant of competitiveness. However, it is false that economy may prevent innovation and competitiveness, since encouraging innovation may help productivity and competitiveness, and with innovation, not only goods price becomes cheaper, but they have higher quality and are more competitive.

RESEARCH METHOD

This research employs a verificative descriptive quantitative method, with a purpose to explain independent variables, which are standardization, commercialization and productivity, on dependent variables. From the perspective of investigated issue, place, technique, tool, time, and data, this research is included in a case survey research of doormat craft creative industrial units based on textile industrial waste materials and textile products in Semarang Regency. The main

source of data is the fundamental microeconomic primary data (cross-section) with 125 units of doormat creative industrial enterprises as its respondents obtained through simple random sampling technique out of the existing 256 units of home industries. The data are collected through survey with questionnaire, interview and observation. Before usage, instrument trial and validity and reliability tests are conducted. Based on the tests, the results are declared valid and reliable.

The measuring dimension and operational limitations of each variable used are as follows. For dependent variables, competitiveness or competition are interpreted as competition process between doormat suppliers or craftsmen existing in input or output market to attract customers (buyers). When competition works effectively, the market will send clear message to business actors, such as in the form of; purchasing power, price, quantity, quality, profit, etc. In this research, the competitiveness variable tends to be interpreted as the ability or capacity to generate good and service products which may fulfill market's or consumers' desire to obtain continuously high income and gains. In addition, it is also related to the people's acknowledgement and enhancement of domestic economic life standard of local society and its surrounding, in a conducive, cooperative and competitive climate. The measuring dimension of competitiveness variables (Y) in this research are calculated in the form of ratio obtained from various ability indicators in comparison with local people's acknowledgement life standard.

The measuring dimension and operational limitations of each independent variable of this research are as follows. The product standardization variable (X_1) is measured based on gini ratio dimension from; content standard, process standard, and product standardization rate with income rate obtained within 12 months or 1 year. The commercialization variable (X_2) is interpreted as the gini ratio of turnover rate, gains, and market share faced with income rate obtained within 1 year. Meanwhile, the productivity rate variable (X_3) is measured based on the ratio of index value of multifactor productivity rate of APC model (American Productivity Center), (Prasetyo, 2017b). The life and acknowledgement standard of an industry in the research area may be determined with its economic productivity, which is measured with goods and services value generated per unit of multifactor production; human resources, capital, material and energy used. Based on the explanation above, the mathematic function equation model and its path analysis regression equation model may be written as follows. $Y = f(X_1, X_2, X_3)$ is the mathematic function equation form and $Y = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$ is the said path analysis regression equation model.

RESULTS AND DISCUSSION

Industrial products that already have standardization and good productivity will greatly help the competitiveness of the industry concerned. The role of standardization and productivity is basically an established process that has been tested for use in products that will be commercialized.

When standardization and productivity have been done properly, standardization can reduce ambiguity and guesswork, guarantee quality, increase productivity, and improve

employee morale and increase competitive. With the path analysis method, the results of this study will illustrate the role of standardization, commercialization and productivity in increasing the competitiveness of the doormat craft industry . The results of this study were also to analyze internal barriers in increasing the productivity of products produced by the mat industry. Because, productivity is one of the most widely used tools for evaluating, monitoring, and improving the performance of industries and national economies. Manufacturing enterprises can face obstacles that make productivity improvement efforts ineffective or even prevent improvement operations, (Bashir, 2014). The results of this study found that the existence of poor management practices had an impact on inhibiting productivity and quality of product standardization. The results of this study support the results of previous studies conducted by Bashir, 2014). Based on factor analysis, the results of these studies indicate that these obstacles can be reduced to three main factors. The research results are sorted by importance, these factors are poor management practices, employee job dissatisfaction, and poor human resource management.

In the current era of competitive industrial revolution 4.0, standardization and productivity are basic concepts that are important in assessing the economic performance of industrial organizations. Due to intense competition and the complexity of variations in customer needs, this industry is required to be creative and innovative and must be able to produce a variety of standard products. This type of product clearly requires a sophisticated measurement system. Where,

labor productivity is one of the most important indices and is the key to commercialization production and services, (Salehi, 2013; Dresch, 2018). In this study, labor productivity that has the ability to make standardized products and commercialization is the main parameter in increasing productivity which serves as a dimension of performance improvement to improve the competitiveness of the mat industry. The results of this study state that the technical level of labor productivity in the doormat industry is very good and efficient. However, this good level of technical productivity cannot develop due to the poor management performance of industrial organizations.

The Next, for easy understanding of the research results which leads to conclusion, the presentation of results of and discussion in this article first describe qualitatively the characteristics of main variables used in this research, and then describe them based on the quantitative data resulted from correlation of *Pearson Product Moment and Path Analysis*. Based on previous theories and studies, it is necessary to first explain about: how the role of standardization may efficiently influence production cost; how effective new product development (its commercialization process) is; and, how flexible (adaptive) competition of products resulted from standardization is. Based on the survey data, we may explain that according content standard, standardization is able to more efficiently influence production cost, thus cash flow will be more current and eventually enhance the gains obtained. Based on the process standard, products resulted from standardization are able to make the repeated process costs cheaper and quicker, thus allowing long-term economic scale. In addition, acceleration of gain turnover to

business recapitalization gets better and more current, and it thus does not depend on capital derived from external loan or bank credit. If viewed based on the standardization rate of final product development during the course of this research, particularly big-scale production, it is not economically efficient yet. However, there is a tendency towards better total efficiency level. The argumentation, 'why the efficiency level has not been achieved in big scale?' Because business actors are not fully concentrated yet on products resulted from standardization, in which most of them they make various creativity development and new model innovations are not standardized yet. They consider that this chance is also interesting and presents its own challenge.

Standardization is initially a less understood discipline in practice, although many economic benefits are resulted therefrom. According to the level of expertise and creativity of business actors, they are generally able to solve any new challenges given by consumers to make products they desire. The research results present evidence, that they are technically able to make efficiency. However, they are generally unable to make economically efficient content standard and process standard. If these products are quickly developed, they are generally unable yet to reduce inventory level cost, maintenance cost and repair cost. Economic efficiency level has not been achieved because the costs are expensive. The argumentation, because the products have richer and varied motifs, they are not efficient yet. Generally, products with many motifs require relatively higher production costs and longer time, as well as more difficult raw material. With expertise capital, it is

technically efficient to make new products with model and motif and color tone as required by consumers. However, according to economic value consideration, this type of product is generally not efficient and effective yet, since it is generally difficult to hold down the attribute cost and to find the raw material, while the attributes are the main attraction. Therefore, the results of this research support the previous research conducted by (Butter, 2007 and Swann, 2010), which explains that standardization is able to result in lower transaction cost prevent maintenance cost risk.

The characteristics of commercialization in this research are part of wider and more dynamic innovation process. The research results show that the behavioral pattern of entrepreneurs in the research area in facing market share to obtain higher gain rate does not have to be made through increasing income by increasing product selling price, but it is driven more by best service motive to consumers or more oriented to after sales product service (product service orientation) instead of increasing selling price. The research results assert that products resulted from standardization may, besides it is able to reduce production and transaction cost directly, enhance benefit commercialization, although with the same selling price or even with lower price in case of big amount purchase. In addition, standardization product may also enhance work productivity, through time speed required compared to making the same non-standardized product. Another benefit of standardized product is that it is more effective and quicker to control the production results with more adaptive production outcome. That is why their

business principle in commercializing their business does not employ survival strategy *price competition,* but tend to employ the basic principle "*tuna satak bati sanak*".

According to the index value of multifactor productivity, we may describe that productivity is able to encourage the competitiveness rate of doormat craft creative industries in the research area to be better. Based on the multifactor index value, the characteristics of this productivity variable may be raised from the perspective of production factor of creative-innovative workers, and production factor of raw material relatively easy to obtain. The argumentation, because there are skilled, creative-innovative workers that meet the quality standard and patchworks available in the research area easily obtained. However, from the perspective of energy production and capital usage factors,

no significant contribution is given, since from the perspective of energy used, it is difficult to hold down both electricity energy and fuel energy for transportation that they are related to external factors. Meanwhile, the capital in this business is low, they are not ready in case of a large amount of orders within a short time. The flow of gain turnover for recapitalization in this business is insufficient to help overcome lack of business capital.

However, on the other hand, this phenomenon may have the entrepreneurs' working spirit reduced, since they have not enjoyed their business gains, which are allocated to other necessities deemed urgent, according to their opinion. Based on the results of correlation calculation of *Pearson Product Moment* in table-1, we find the level of relationship between variables used in this research.

Table 1. Results of Calculation of the Correlation of Model Pearson Product Moment Variable

Correlations

		Competitive	Standardi	Commercial	Productivity
Competitiveness	Pearson Correlation	1	.622**	.607**	.669**
	Sig. (1-tailed)		.000	.000	.000
	N	125	125	125	125
Standardization	Pearson Correlation	.622**	1	.642**	.642**
	Sig. (1-tailed)	.000		.000	.000
	N	125	125	125	125
Commercial	Pearson Correlation	.607**	.642**	1	.542**
	Sig. (1-tailed)	.000	.000		.000
	N	125	125	125	125
Productivity	Pearson Correlation	.669**	.642**	.542**	1
	Sig. (1-tailed)	.000	.000	.000	
	N	125	125	125	125

Source : Data Processed

Based on the results, there is strong, positive and significant correlation occurring at level (1-tail) 1%, of each independent variable (standardization, commercialization and productivity and dependent competitiveness variables). Therefore, this quantitative result supports and strengthens the explanatory evidence of qualitative analysis above. Further, the biggest positive and significant correlation value takes place between independent variable and dependent variable, which is between productivity variable and competitiveness variable of 0.669 or (66.90%). This means that the results of this research support and prove the researcher's statement of basic framework above that productivity is the main key to competitiveness, (Prasetyo, 2017b). The second biggest order is the positive and significant correlation value between standardization variable and competitiveness variable, f 62.20%. Meanwhile, the positive and significant value between commercialization variable and competitiveness variable is only 60.70%, classified as the lowest for the model. The research results also support the argumentation of qualitative descriptive analysis above, that commercialization of industrial product remains low although it tends to increase.

Table 2. Results of Calculation of Path Coefficient Value (Path Analysis).

Coefficients

Model	Unstandardiz Coefficients		Standardized Coefficients	t-Stc	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.044	.036		-1.213	.228
Standardization	.198	.091	.195	2.178	.031
Commercial	.259	.079	.265	3.253	.001
Productivity	.545	.111	.400	4.903	.000
a. Dependent Variable: Competitiveness					

Source : Data Processed

The research results prove that the statement that productivity is the key to competitiveness is correct and accepted. The statement also supports previous economic experts' opinion that consider productivity as the most important factor in long term on; competitiveness, economic growth and welfare, (Baumol, 1991; Porter, 2012, Vasile, 2016).

Further, to strengthen the statement above, the research results in table-3, when viewed from the Adjusted R Square value is 0.539, compared to be partially viewed of 0.400.

If the results of correlation analysis in table-1 are associated with the results of regression analysis of *path analysis* model in

table-2, the statement that productivity is the main key to enhancement of competitiveness remains proven correct. The path analysis results show that the highest standardized path regression coefficient value (*Standardized Coefficients*) of the independent variables on dependent competitiveness variable (Y) is contributed by the productivity variable (X3) which is 0.400 and the contribution is positive and significant at significant level 1%. This means that the productivity variable is able to positively and significantly contribute for 40% to the competitiveness of doormat craft creative industries in the research area is accepted with confidence rate of 99%.

Table 3. Results of Joint Regression Calculation (Model Summary).

Model Summary[b]

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.742[a]	.550	.539	.1979775850	.550	49.292	3	121	.000	1.937

a. Predictors: (Constant), Standardization, commercialization, Productivity
b. Dependent Variable: Competitiveness

Source : Data processed

This means that after adjustment test, the standardization (X1), commercialization (X2) and productivity (X3) variables are able to mutually contribute to competitiveness variable (Y) for 53.90% and the remaining 46.10% is influenced by other variables beyond the model. When studied further, from the 53.90% contribution, 40% of which is contributed by productivity variable and the 13.90% is contributed by standardization and commercialization variables. The statement is valid and accepted since the *Change Statistics* value for F-statistic 49.29 is significant at level 1% and the statement is not biased since the DW value is close to 2.0, which is 1.937.

Further, to strengthen the a of statement above, the research results above may be re-described with path analysis model like in figure-1. If the research results are viewed in figure-1 and values in table-4, they will be able to describe that the contribution or influence of productivity variable directly and indirect influence and total influence is able to contribute the most to competitiveness in comparison to other variables' contribution or influence.

Figure 1. Results of Path Analysis
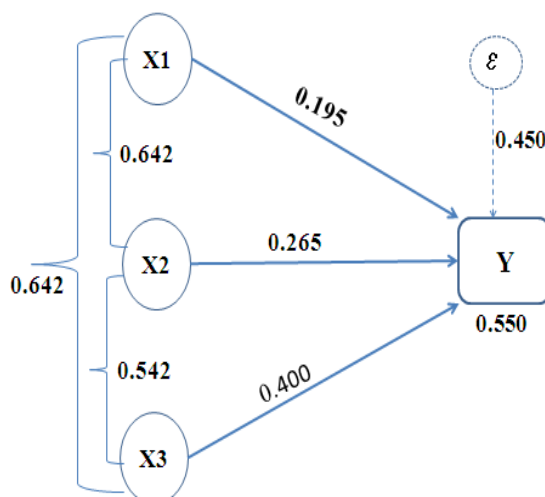
Source : Data Processed

If viewed based on table-4 which is the calculation results of figure-1, it seems that the

value; the direct influence of productivity variable on competitiveness variable is 0.160 and its indirect influence is 0.108 and total influence is 0.268. The total influence ofproductivity of 0.268 on competitiveness is the highest among other variables. This evidence increasingly strengthens that productivity is the main key to enhancement of industrial competitiveness. Therefore, the results of this research support the statement of (Porter, 2012) that the only meaningful concept of competitiveness at national level is productivity.

Table 4. Results of Calculation of Direct Influence, Indirect Influence & Total Influence

Variable	Standardized Beta Coefficient	Direct Influence to Y	Indirect Influence			Total Indirect Influence	Total Influence
			X_1	X_2	X_3		
X_1	0.195	0.038		0.033	0.050	0.083	0.121
X_2	0.265	0.070	0.033		0.058	0.091	0.161
X_3	0.400	0.160	0.050	0.058		0.108	0.268
Total Influence							0.550

Source: Processed primary data, (2018).

Based on figures-1 and table-4, this shows increasingly strong quantitative evidence, that; productivity is the main or key force that is important in increasing industrial competitiveness in the research area. The results of this study also strengthen the argumentation of qualitative descriptions above, that the main key in increasing productivity itself is based on the productivity capability of the workforce in making products that meet standard requirements and commercialization. The results obtained from the results of figure-1 are also strong. Where there is a large correlation value that is strong between productivity and standardization factors which is equal to 0.642 (64.20%) and the correlation coefficient between productivity and commercialization is 0.542 (54.20%).

CONCLUSION

Based on the research results and discussion above, we may conclude that the research purpose is to examine the influence of independent variable of product standardization rate. Productivity has the strongest positive and significant correlation, with positive and significant influence with most dominant value, on the competitiveness of doormat craft creative industries in the research area. This conclusion also proves the research rationale statement correct, that productivity is the main key to enhancement of industrial competitiveness. Standardization factor is able to present the second highest positive and significant correlation with competitiveness after productivity. However, the standardization variable only presents the third lowest total influence after commercialization. Commercialization factor only has the third highest (last) correlation with competitiveness variable. However, the commercialization variable presents the second total influence on the competitiveness variable after productivity. It is suggested that to enhance industrial competitiveness, as a reflection of regional and national competitiveness, productivity should first be enhanced as the main key to enhancement of competitiveness of concerned industry. However, other researchers are recommended to study the contrary, since it may be correct

that there is causality relationship between productivity and competitiveness of industry like previous researches conducted by, (Backus, 2011, 2014; and Wang, 2014).

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