THE ROLE OF GOVERNMENT REGULATION ON SUSTAINABLE BUSINESS AND ITS INFLUENCES ON PERFORMANCE OF MEDIUM-SIZED ENTERPRISES

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Abstract: Industrial activities do not only contribute positively to the country's economy and society's prosperity but also carry negative impacts, such as causing air pollution, water pollution, and noise. Regarding the advantages as well as the inevitable disadvantages, a sustainable business concept such as green supply chain management (GSCM) is needed. The purpose of this study is to examine sustainable business practices, particularly GSCM, in the medium-sized enterprises engaged in food and beverage sector. This study displayed and thoroughly explained several variable relationships, namely the antecedent variable of the green supply chain management, i.e. government regulation, and consequences of the green supply chain management, i.e. financial and environmental performance. The respondents of this study were 160 medium-sized enterprises engaged in the food and beverage sector in Pasuruan Regency. The sampling method used was a saturation sampling that involved all members of the population. This study employed SEM-based variance analysis (PLS) using SmartPLS 3.0 statistical software. The results of this study indicate that government regulations have a significant positive effect on GSCM, and sequentially it has a significant positive effect on financial and environmental performance.

Keywords:

Introduction

Practically, business activities do not only lead to an effective influence, such as increasing profits for the company and increasing the country's economy but also cause negative impacts, such as increasing waste, pollution and other adverse effects on the environment.

According to the published report of the Directorate General of Pollution Control and Environmental Damage and the Ministry of Environment and Forestry (abbreviated as KLHK in the Indonesian Language) in 2016, the majority of the river in 33 provinces in Indonesia was in heavily polluted condition. The most significant percentage of river pollution was Sumatra and Java. Java Island where this study was conducted as a percentage of water pollution of 68%.[1]

In addition to the level of water pollution, there is also air pollution as indicated by the air quality index (abbreviated as IKU in the Indonesian Language). The best / highest air quality was achieved by Sumenep regency with a percentage value of IKU 89.07, while the lowest air quality value was Probolinggo, Surabaya and Gresik regencies, with a percentage value of IKU (76.69, 74.69 and 65.81). The highest air pollution (CO) rate caused by industries in East Java occurs in Tuban Regency and Pasuruan Regency.

These problems cause the urgency of conducting a sustainable business concept, Green Supply Chain Management (GSCM). GSCM becomes one of the sustainable business concepts because it involves all elements of the supply chain in caring for and protecting the environment, or trying not to cause harmful

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1   www.nationalgeographic.co.id (2016)

impacts on the environment, *(*Setiawan *et al.,* 2011).

The sustainable business concept in this research refers to GSCM since it is considered as a comprehensive way of defining and building sustainable actions among networks of business partners (Darnall, *et al.,* 2008)critics argue that improvements are likely to occur within the organization's operational boundaries rather than being extended throughout the supply chain. However, previous research suggests that the organizational capabilities required to adopt an EMS may facilitate GSCM implementation and the institutional pressures to adopt both management practices are similar. Consequently, EMS adopters may have a greater propensity to expand their focus beyond their organizational boundaries and utilize GSCM practices to minimize system-wide environmental impacts.

The role of government regulations on companies regarding GSCM practices is fundamentally important, especially in developing countries, because people in developing countries typically have low environmental awareness compared to people in developed countries. This is under the research conducted by (Chu, 2017) which resulted in the finding that in developed countries such as South Korea there was no significant influence of government regulations on GSCM practices. This is because the company in that country applies the practice of GSCM based on a deep awareness of the environment.

The similar results were found in the study written by (Kohli & Hawkins, 2015), that was carried out in the United States. the result showed that the pressure variable from GSCM in the form of government regulation had non-significant negative effects because companies in the country where the study was conducted, GSCM practices were carried out based on awareness of the environment and they felt a little disturbed by binding government regulations.

According to research conducted by (Savita *et al.,* 2016) regardless of the type and shape of a country, government regulations for business actors concerning environmental preservation in developing countries are considered important as a basic reason for practising environmentally friendly business concepts.

The importance of implementing the GSCM concept in the last decade is due to its capability to reduce costs, provide added value to the supply chain, and improve financial performance and environmental performance. This is following the results of research conducted by (González-Benito & González-Benito, 2005; Mao, *et al.,* 2017; Lokesh & Jitesh, 2017; Younis *et al.,* 2016) GSCM practices improve environmental performance (Savita *et al.,* 2016; Stefanelli *et al.,* 2014; Choi & Hwang, 2015; Zhu *et al.,* 2007a; Laari *et al.,* 2016).

On the other hand, a decrease in financial performance will occur if the selection and the implementation of GSCM are not adjusted to the capabilities of a company. This condition is due to the high cost required by the company for implementing GSCM (Mao *et al.,* 2017; Puryono, Mustafid, & Jie, 2017).

Chosen as a research site, Pasuruan Regency is included in the top ten regencies with the highest number of MSMEs in the East Java – Indonesia province – with a total of 248,802 units spread across all sectors and having 1,301 large enterprises. A considerable number of companies also, by all means, causes high pollution. Pasuruan Regency has five potential commodities, including gold and silver jewellery, iodized salt, crackers and petis (Wulandari, 2012). Crackers home industries are categorized as medium-sized enterprises engaged in the food and beverage sector, and part of the object of this research.

Pasuruan Regency was chosen because the regency already has local regulations regarding policies for business people to conserve the environment. It also has high innovation in the development of MSMEs through government programs: Community Service Centers and Strategies (abbreviated as SATRYA EMAS in the Indonesian language) contained in the RPJMD from 2013 to 2018. Regarding various previous research findings and differences in the

characteristics of research objects, the topic is appealing to study.

Theoretical Framework

Operating a business with environmental considerations was globally popular in 1982, following the enactment of regulations by the United Nations on environmental management. Besides, Indonesia also maintains regulations regarding environmental management outlined in *UULH²* and *UUPLH³*. These regulations are continuously being developed so that they remain effective in reducing pollution and environmental impacts. This research focused on environmental-based business studies based on government regulations and GSCM's impact on performance. The theoretical review used in this study is as follows.

Resource-Based View (RBV) Theory

This study falls within the scope of strategic management which specifically analyzes and discusses the steps taken by top management, especially concerning the management of resources, performance, and changes in internal and external environments. The ultimate goal of strategic management is to achieve the company's competitive advantage among its competitors. Strategic management consists of analysis, decision making and actions taken by the company to create and maintain competitive advantage (Dess *et al.,* 2005)

Proponents of RBV states that the expansion of this theory is needed to include external variables from resources that are very valuable to the company, namely the natural environment (Barney, 1991; Hart, 1995; Priem, Richard L; Butler, 2001; Aragón-Correa & Sharma, 2003. (Hart, 1995:991) stated that "Strategy and competitive advantage in the upcoming years will be rooted in resources and strategic capabilities that facilitate environmentally sustainable economic activity".

According to (Messelbeck & Whaley, 1999) the environmental impact on supply chain networks is not only analyzed from the suppliers, distributors, and consumers, but also the transportation capacity for product delivery from both suppliers and consumers, production, and also warehousing. In other words, the environmental impact should consider all sources that made up the overall flow of waste and pollution. Many GSCM studies were based on the RBV theory to explain the company's competitive position such as the existence of strategic differences and the benefits the company gets in implementing GSCM for improving its performance (efficiency) and other strategies on GSCM implementation such as reusing and utilizing waste that can directly generate profits, (Shi *et al.,* 2012).

Generally, previous research on green supply chain management used the RBV theory for testing and investigating related phenomena (Corbett & Klassen, 2006; Markley & Davis, 2007). The role of RBV theory was to see the proactive SCM strategy and its capabilities as resources used to encourage the implementation of green practice in SCM companies, (Bowen *et al.,* 2009). (Sharma & Vredenburg, 1998) argued that a proactive business strategy that includes environmentally friendly concepts and environmental approaches to business operations can be considered a valuable resource. Thus, the combination of SCM practices and green practices can lead to the development of GSCM practices as a strategic resource (Noci, 1997; Carter *et al.,* 1998; Bowen, *et al.,* 2009).

Sustainability Theory

This research is based on sustainability theory which describes a form of economy and society that is; lasting and can be lived on a global scale.[4]

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2   An Indonesian abbreviation for Environmental Law
3   An Indonesian abbreviation for Environmental Protection Law
4   http://www.sustainability-justice-climate.eu

Sustainability thinking is not only about natural resources but also about employees, customers, society and company reputation (Heizer & Render, 2014). Besides, the focus of sustainability is to balance the interaction between economic systems and natural systems. This is because environmental assets are a primary determinant of life quality, like forests, clean of water, clean of air, species, rivers, seas, and others (Geofferey, 1998). This theory underlies the GSCM concept because the concept contains efforts to minimize waste and maintain the environment for all members of the supply chain. This concept aims to balance the company's marketing performance with environmental issues, (Ninlawan *et al.,* 2010).

Government Regulation

Government regulation aims to direct company operations, as what had happened in the textile and apparel industry in China. The Chinese government set rules to improve technology and reduce energy and carbon consumption during 2009-2011. This rule required the companies to update their potential equipment to reduce resource and energy consumption, and able to provide the higher added value of the products (Wu *et al.,* 2012).

According to (Zhu *et al.,* 2017)this paper develops a conceptual model with four hypotheses to propose moderation and mediation effects of CRG on the relationships between two GSCM practices (green innovation and green purchasing, regulation pressure that can be measured by indicators is the regulation itself added with several items, namely; environmental regulations from the central government, regional environmental regulations, environmental regulations from exporting countries and products that are contrary to law. To measure the government regulation variables in this study, the researcher used an instrument developed by (Kohli & Hawkins, 2015), which is a government regulation that requires companies to implement sustainable business and government regulations that control the extent to which companies

implement sustainable business. The instrument was used because there was a similarity between the measurement of government regulation with the questionnaire with the measurements in this study.

The government regulation used as references in this study was the regional regulation of Pasuruan Regency No. 3 of 2010 Article 12 paragraph 1 which said: waste reduction activities including limiting waste accumulation, recycling waste and/or reusing waste. Additionally, the article 12 paragraph 3 which said: business actors in carrying out activities as referred to in Article 12 paragraph 1, including using production materials which have the least amount of waste and / or easily decomposed by natural processes, reusing, and recycling. Another government regulation used as references was article 16 paragraph 1 concerning the supervision of waste management programs.

The measurement of government regulation variables in this study was undertaken by evaluating respondents' understanding and knowledge regarding regional regulation of Pasuruan Regency No. 3 of 2010 Article 12 and 16 concerning the obligations of all business people in implementing the environmentally friendly business concept.

Green Supply Chain Management

GSCM is a keyword to ensure that all factors or all elements in the supply chain pay a great deal of attention to their environment or do not cause harmful effects on the environment (Setiawan *et al.,* 2011). However according to (Ninlawan *et al.,* 2010) in GSCM practice activities that must be carried out is to improve the balance of both marketing performance and environmental issues that emerge new issues such as the occurrence of savings in energy use and reduction of pollution in improving competitive strategies.

GSCM aims to consider how much influence the company created on the environment from all aspects including products and processes

ranging from raw materials to finished products, as well as final disposal of products. GSCM can be measured by indicators used in the study conducted by (Chun *et al.,* 2015):

- Green purchasing: companies minimize purchasing activities to meet government regulations and customer expectations regarding the environment.

- Green production: it is a manufacturing process that is planned and implemented by reducing environmental risks and impacts.

- Green distribution: it involves green packaging and green logistics activities.

- Reuse: the use of Reuse is known as remanufacturing, it is intended to provide added value and ease manifestation on the concept of green production to increase product benefits and extending product life.

The instrument used in the study conducted by (Chun *et al.,* 2015) was chosen based on the consideration that the overall green supply chain activity has been summarized in the study, and is very following this research due to its implementation in SME objects.

Financial Performance

Financial performance refers to the importance of money generated from business activities. Measures of financial performance can be based on accounting data or market value on the environment (González-Benito & González-Benito, 2005). Financial performance can be measured not only by using quantitative measurements, such as measurements using financial ratio formulas but also by using qualitative measurements (Chong, 2008).

The qualitative measurement of financial performance is based on perceptions or subjective views of managers (Vij & Bedi, 2016). This is due to the difficulty to obtain the data since respondents were reluctant to provide sensitive information to outsiders (Sandberg & Hofer, 1987; Dess & Priem, 1995. Managers tend to provide subjective performance evaluations,

(Wiklund & Shepherd, 2005; Wiklund, 2018), especially small-sized enterprises that do not publish their annual reports, (Dess & Robinson, 1984).

Managers' perceptions regarding financial performance include items such as perceptions of income growth and increased profits, turnover, increased sales and an increase in the number of employees. Research conducted by (Munizu, 2010)social economics and culture, and related institute role aspect to internal factors of Small and Micro Business; (2 on the business performance of MSMEs was measured by the perceptions of company owners or managers regarding sales growth, capital growth, labour growth and profit growth.

The indicators of financial performance in this study were based on research done by (Chong, 2008; Munizu, 2010social economics and culture, and related institute role aspect to internal factors of Small and Micro Business; (2; Vij & Bedi, 2016), about the perception of managers and company owners. The items used include sales growth, capital growth, labour growth and profit growth. This research indicator was reinforced by (Vij & Bedi, 2016), in their research, which explains that objective (quantitative) measures were equal to subjective (qualitative) measures of business performance.

Environmental Performance

Environmental performance is defined as the ecological outcome of the company's commitment to preserve and improve the natural environment (Nawrocka & Parker, 2009; Choi & Hwang, 2015). According to (Mensah & Blankson, 2013) environmental performance indicators are material use, pollutant release and non-product output, while the items used in this study include: reducing water consumption, (Jeswani & Azopagic, 2011), reducing the number of environmental accidents, (Hunt & Auster, 1990), reducing air pollution emissions, (Mensah & Blankson, 2013), reducing consumption of hazardous or toxic substances, (Al-Zaabi *et al.,* 2013) and reducing solid waste, (Lin *et al.,* 2013).

Research Method

The population in this study was homogeneous, namely all medium-sized enterprises actors engaged in food and beverage sectors in Pasuruan Regency, East Java, Indonesia. Data about the number of respondents and information about respondents were obtained through the East Java provincial Cooperatives and SME Office. The criteria for the population in this study were listed as follows:

- Medium-sized enterprises that produce processed food and beverage products
- Medium-sized enterprises engaged in food and beverages sectors registered in the East Java Provincial Cooperative and MSME Service until 2019.

Based on these criteria, the population of medium-sized entrepreneurs engaged in the food and beverage sector in Pasuruan Regency amounts to 160 business units, spread over 17 sub-districts. The sampling method used in this research is saturated sampling or census sampling method by involving all of the population research. The aim of the census sample method was to produce small errors or even zero error rates.

Instruments

In this study, data collection used a questionnaire which was directly distributed to all respondents. All respondents were owners of medium-sized companies because they have broader knowledge about the flow of supply chains than employees. The research questionnaire was divided into four parts: Part A consists of two items to measure government regulations, Part B consists of 13 items to measure green supply chain management, Part C consists of 4 items to measure financial performance, and Part D consists of 6 items to measure environmental performance.

In this study, the measurement used was a Likert scale to measure the response of subject to 5 scale points with the same interval, thus the data type used was interval type data, (Jogiyanto, 2014). Likert Scale has several choices ranging from strongly agree to strongly disagree, namely: (SS) Strongly Agree (Score 5), (S) Agree (Score 4), (R) Undecided or Neutral (Score 3), (TS) Disagree (score 2), (STS) Strongly disagree (Score 1), (Likert Mueller, 1986:9).

Analysis

The analysis used in this study is Partial Least Square (PLS). PLS analysis was used to test the hypotheses, predict the complex situations, and provide the multivariate data analysis facilities. This study uses an analysis of Variance Based-SEM approach, known as PLS. In this case, PLS was oriented to a predictive model with a component base, and it used an algorithm allowing the best predictions on each latent variable. In general, PLS is different from Co-variance Based-SEM (CBSEM). CBSEM analysis is based on the evidence of the theory with parametric assumptions that must be fulfilled, (Ghozali, 2014).

In this study, PLS analysis used SmartPLS 3.2.8 software since this application is the latest version of statistical application specifically used to test the analysis of variance based-SEM approach (PLS). The concept model is as follows:
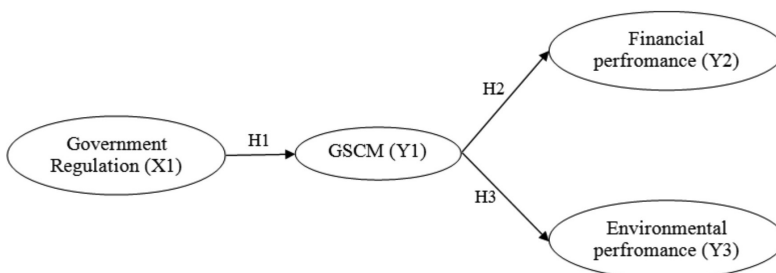

Figure 1

Figure 1 explained that GSCM, in this study, did not act as a moderating variable, but it played two roles. Those two roles were (1) GSCM (Y1) acting as the dependent variable of the independent variable, Government Regulation (X1); and (2) GSCM (Y1) acting as an independent variable of the dependent variables, the Financial Performance (Y3) and the Environmental Performance (Y3).

At present, it is still unclear what determines green SCM and whether green SCM shapes good corporate performance in SMEs or not. Specifically, for this study, it is medium-sized businesses, considering that in previous studies on large companies GSCM practices required high costs for its implementation. This study focuses on examining driver factors and the results of applying GSCM (effectively and efficiently). Therefore, this study aims at applying the basis of RBV and sustainability theory to investigate the relationship between GSCM, government regulation, and the impact of GSCM implementation on company performance, Thus, the following are the hypotheses offered in this study:

H.1 Government regulations have a significant positive effect on GSCM practices

Table 1: Indicators and Item of Questionnaire

Government Regulations: Regulations

By the existence of the government regulations, the leader of the company appealed to the company to implement the green business concept

By the existence of the government regulations controlling the extent to which companies implement the green concept, company leaders evaluate the practice of the green concept

GSCM: Green purchasing

The company avoids purchasing products containing hazardous substances

There is the management of hazardous waste done by the company

GSCM: Green Production

Companies use low electricity consumption

Companies use the low fuel consumption

Government Regulation: Regulation

Companies use safe raw materials for food and beverage production

Companies use safe food colourings for food and beverage products

There is the processing of residual production waste employed by the companies

GSCM: Green Distribution

The companies are always precise (in terms of time and amount) in delivering food and beverage products to consumers

The companies do an efficiency on the use of fuel in the distribution process of food and beverage products

Companies use optimal transportation capacity in distributing products

GSCM: Reuse

There is an action to use liquid waste and solid waste

There is the use of defective or damaged food or beverage products

Financial Performance: Manager's Subjective View

There is an increase in company sales

There is an increase in company profits

There is an increase in the amount of company capital

There is an increase in the number of employees in the company

H.2 GSCM practices have a significant positive effect on financial performance

H.3 GSCM practices have a significant positive effect on environmental performance

Result and Discussion

In PLS analysis, there are two stages of testing, namely: the outer model testing and the inner model testing. The results of the outer model testing in this study are as follows:

- **Convergent Validity:** it aims at determining the validity between indicators and their latent variables. The value of convergent validity is said to be high if loading factor value shows more than

0.70 with the construct measured, (Chin, 1998;"abstract":"Provides a nontechnical introduction to the partial least squares (PLS Ghozali, 2011). The following is the table of convergent validity in this study:

The value is shown in table 2 explains that all items used in this study were valid since all factor loading values are above 0.7. Thus, it can be concluded that each indicator can be said to be valid in measuring its construct.

- **DiscriminantValidity**: it serves as an evidence that the latent construct predicting its block size is better than the block size of other latent variables,(Ghozali, 2011). Discriminant validity in this study are presented in this following table:

Table 2: Convergent Validity

Item	Variable	Loading Factor
X1.1.1	Government regulation (X1)	0,969
X1.2.1		0,971
Y1.1.1		0,821
Y1.1.2		0,854
Y1.2.1		0,876
Y1.2.2		0,898
Y1.2.3		0,859
Y1.2.4	Green supply chain management (Y1)	0,880
Y1.2.5		0,856
Y1.3.1		0,873
Y1.3.2		0,842
Y1.3.3		0,850
Y1.4.1		0,864
Y1.4.2		0,836
Y2.1.1		0,927
Y2.1.2	Financial Performance (Y2)	0,923
Y2.1.3		0,922
Y2.1.4		0,839
Y3.1.1		0,832
Y3.1.2		0,837
Y3.2.1	Environmental Performance (Y3)	0,864
Y3.2.2		0,889
Y3.3.1		0,792
Y3.3.2		0,796

Table 3: Cross loading

Item	X1	Y1	Y2	Y3
X1.1.1	0,969	0,750	0,604	0,687
X1.1.2	0,971	0,771	0,615	0,712
Y1.1.1	0,585	0,821	0,643	0,711
Y1.1.2	0,629	0,854	0,687	0,757
Y1.2.1	0,670	0,876	0,721	0,793
Y1.2.2	0,712	0,898	0,745	0,803
Y1.2.3	0,679	0,859	0,674	0,741
Y1.2.4	0,702	0,880	0,692	0,766
Y1.2.5	0,697	0,856	0,696	0,743
Y1.3.1	0,742	0,873	0,732	0,826
Y1.3.2	0,675	0,842	0,705	0,763
Y1.3.3	0,666	0,850	0,755	0,792
Y1.4.1	0,654	0,864	0,731	0,781
Y1.4.2	0,661	0,836	0,739	0,771
Y2.1.1	0,611	0,796	0,927	0,830
Y2.1.2	0,592	0,750	0,923	0,784
Y2.1.3	0,579	0,785	0,922	0,797
Y2.1.4	0,477	0,646	0,839	0,636
Y3.1.1	0,547	0,694	0,673	0,832
Y3.1.2	0,520	0,716	0,641	0,837
Y3.2.1	0,612	0,783	0,720	0,864
Y3.2.2	0,637	0,840	0,790	0,889
Y3.3.1	0,659	0,725	0,720	0,792
Y3.3.2	0,634	0,728	0,696	0,796

The value shown in table 3 explains that all items in this study had met discriminant validity, that is, each item measures its latent variables higher than the value of other items.

- **Composite Reliability**: a variable can be said to be reliable if the average value of Average Variance Extracted (AVE) is greater than 0.5. The composite value of reliability and cronbach's alpha above is 0.70. The output of composite reliability and cronbach's alpha in this study are presented as follows:

Based on Table 4, the composite value of reliability and cronbach's alpha above is 0.70, while the AVE value is greater than 0.5 so that all items in this study are said to be reliable.

Furthermore, the inner model testing in this study is described as follows:

- **R-Square** (R^2): The R-square value in this study is presented in table 5 below:

The R-Square value indicates that as many as 61.4% of the GSCM variable (Y1) is influenced by government regulations (X1), while the remaining 38.6% is influenced by other variables outside the study. The R-Square value of Financial performance (Y2) is 68.4%, meaning that as many as 68.4% of the financial performance variable is influenced by GSCM (Y1), while the remaining 31.6% is influenced by other variables outside the study. The R-Square value of environmental performance

Table 4: Goodness of fit

Variable	Cronbach's Alpha	Composite Reliability	AVE
(X1)	0,937	0,969	0,941
(Y1)	0,968	0,971	0,739
(Y2)	0,925	0,947	0,816
(Y3)	0,913	0,933	0,698

Table 5: R-Square

Variable	R-Square
GSCM (Y1)	0,614
Financial Performance (Y2)	0,684
Environmental Performance (Y3)	0,806

(Y3) is 80.6%, meaning that as many as 80.6% of the environmental performance variable is influenced by GSCM (Y1), while the remaining 19.4% is influenced by other variables outside the study

In this study, the value of predictive relevance (Q2) is known to be 0.76 which means that the diversity of data from the study that can be explained by the designed structural model is 76%, while the remaining 24% is explained by other factors outside the research model.

- **Results of hypotheses testing**: Hypothesis testing in this study is shown in table 6 below:

From the table of hypothesis testing, it is known that all research hypotheses are accepted because they have a p-value below 0.05, which means that all variables have a significant influence.

Table 6: Hypothesis test

Variable	Correlation Coefficient	Sample Mean	T-Statistic	P-Values
X1 -> Y1	(+) 0,784	0,038	20,431	0,000
Y1 -> Y2	(+) 0,827	0,031	27,075	0,000
Y1-> Y3	(+) 0,898	0,020	44,143	0,000

Discussion

- The effect of government regulations on GSCM practices

Government regulations have a significant positive effect on GSCM with a correlation coefficient of 0.784 or 78.4%. It means that when the variable of government regulations is increased by 1 time (once), the GSCM variable will also increase by 78.4%. The significant positive results are due to the medium-sized business on the food and beverage sector in developing countries such as Indonesia, practising GSCM based on government regulations and a small part due to initiatives to gain efficiency.

Positive affect is also due to the respondents in this study who have a good level of literacy on government regulations, with the distribution of 80% respondents being aware of government regulations, and the remaining 20% of respondents being not aware of government regulations regarding

the environmental awareness (Table 7), the understanding of medium-sized entrepreneurs towards the government regulations is good because the government often organized the socialization regarding to the regulations and supervision action so that the implementation of environmentally friendly businesses is primarily based on the roles of the government. The results of this study are consistent with the study conducted by (Savita *et al.,* 2016in which, they extend important opportunities to resolve\\nenvironmental issues. However, many researchers, including manufacturers\\ nand government bodies often disregard the green concept of information\\ntechnologies and systems in minimizing environmental issues. A\\ncomprehensive review on Green SCM, Green IT and Green IS for sustainable\\ nenvironmental performance in manufacturing companies is presented using\\nInput-Process-Output (IPO; Zhu *et al.,* 2007b; Nezakati *et al.,* 2016) finding that the practice of GSCM in Malaysia was based on a strong driver factor, the government regulations.

The results of this study are different from the study conducted by (Zhu *et al.,* 2007a) finding that there was a negative effect of government regulations on GSCM in automotive companies in China. This negative effect was also found in the study of (Kohli & Hawkins, 2015) on companies manufacturing in South Korea. The negative effect occurring in these countries is due to the practice of GSCM was based on other factors not listed in this study, such as volunteering in adopting the GSCM concept, considering added value, and creating other benefits for the company. Thus, binding government regulations regarding the practice of GSCM cause a decline in the implementation of GSCM.

- Effect of GSCM practices on financial performance

GSCM has a significant positive effect on financial performance with a coefficient value of 0.827. It means that when GSCM is increased by 1 time (once), the financial performance will increase by 82.7%. The results of this study support the study conducted by (Vij & Bedi, 2016) showing that the increase of labour in items of financial performance is caused by reciprocal relationships between owners and labour of SME. The owner needs labour for business operations, while labour requires work with motives other than financial ones, such as for the purpose of obtaining free production waste that they can use for non-consumption purposes (animal feed). These activities can save the costs of the company's production and increase company profits.

The positive effect of GSCM on financial performance in this study is also because of the green purchasing indicators on avoidance regarding the use of hazardous substances such as the hazardous chemicals in products will reduce the production cost in which the product of the medium business in this study use only local natural potential ingredients. indicators of green production, such as the low usage of electricity and fuel, can necessarily reduce costs and increase profits.

Indicators of green distribution, such as using safe production materials, reusing damaged and defected products having quality both for recycle and as new products, and utilizing production waste, lead to increased sales. Meanwhile, GSCM practices such as the precision time in sending orders to buyers

Table 7: Distribution of respondents based on knowledge of government regulations

Knowledge of Government Regulations	Total Respondents	%
The respondent knows about regional regulations of Pasuruan Regency No. 3 of 2010 Article 12 and 16	128	80
The respondent did not know about regional regulations of Pasuruan Regency No. 3 of 2010 Article 12 and 16	32	20
Total	160	100

can also lead to customer satisfaction which will cause customers to have an intention for repurchasing the product of the company in the future, so it will lead to the improvement of the company's financial performance.

Reuse indicators, such as the use and management of solid or liquid waste which are sold as animal feed or manure, can increase company sales (sales other than merchandise). This will inevitably able to increase company profits or to create efficiency by lowering labour costs. The company could possibly provide waste to unpaid workers/labours, usually farmer. The results of the study regarding the significant positive relationship between GSCM variables and financial performance in this study support the results of research conducted by: (Puryono *et al.,* 2017; Laari *et al.,* 2016; Miroshnychenko *et al.,* 2017; Younis *et al.,* 2016).

Different results were found in the research conducted by (Wang & Sarkis, 2013social and governance (ESG; González-Benito & González-Benito, 2005; Mao *et al.,* 2017). The results of the research were negative because the company spent a lot of money on GSCM practices. The GCSM employed in those researches were not cautiously chosen and adjusted to the company's ability, so the company's financial performance decreased.

In this study, the implementation of GSCM actually improved financial performance because GSCM in small and medium-sized enterprises had different measurements from the GSCM concept in large companies. The implementation of GSCM to small and medium enterprises is carried out using simple strategies and equipment, and because there is still no standardized GSCM concept such as it is in manufacturing companies and other large companies, for example, with ISO, MOU with supply chain members and so on.

- Effect of GSCM on environmental performance

There is a significant positive effect of GSCM on environmental performance with a correlation coefficient value of 0.898 or 89.8%. It means that when GSCM is increased by 1 time (once), the environmental performance will increase by 89.8%. The positive effect of GSCM on environmental performance occurs because SMEs that consider environmental influences from raw materials to finished products have higher environmental performance results than other SMEs that do not implement GSCM. The practice of using low electricity and fuel, the selection of safe raw materials, and optimum distribution of products will lead to increased environmental performance, such as the increase on pollutant release and material use, as well. Thus, in this research, the GSCM concept has an effect on reducing the environmental impact caused by the company, by creating a balance of interests between the company and the community, as well as increasing the conduciveness of the work environment.

The results of this current study support the research conducted by (Savita *et al.,* 2016; Stefanelli *et al.,* 2014; Choi & Hwang, 2015; Zhu *et al.,* 2007a; Zhu *et al.,* 2017; Laari *et al.,* 2016). This is because the practice of GSCM directly has the most effective role to improve the company's environmental performance results compared to companies that do not adopt GSCM. On the other hand, research studies that are different from this research are those conducted by (Younis *et al.,* 2016) in the bio-energy MSME sector in Brazil (sugar cane and ethanol production), and (Zhu *et al.,* 2007b) in automotive companies in China. The negative influence is due to the fact that GSCM's practice is not enough to improve environmental performance. In addition, there are still other efforts needed by the company regarding the management of environmental impacts such as *AMDAL*[4] and CSR and other green actions to improve the company's environmental performance.

Conclusion

Government regulations have a significant positive influence on GSCM's practices in the Medium-Sized Enterprise on the food and beverage sector in Pasuruan Regency.

The stronger the government regulations are, the higher the GSCM practices will be, and vice versa. GSCM has a positive influence on financial performance in the Medium-Sized Enterprise on the food and beverage sector in Pasuruan Regency. The higher the GSCM practice of a company is, the higher the financial performance will be, and vice versa.

GSCM has a significant positive effect on environmental performance in the Medium-Sized Enterprise on the food and beverage sector in Pasuruan Regency. The higher practice of GSCM is, the higher the environmental performance will be, and vice versa. In this study, it has been explained that the biggest contribution to environmental problems in Indonesia, especially, Pasuruan Regency, is from large companies and large industries, while Medium-Sized Enterprises, especially those running in food and beverage sector, have very little contribution in causing environmental impacts since they have used sustainable business concepts to obey the government regulations, to get efficiency, and to increase company profits.

This research concludes that sustainability business as required by government regulations to be applied by Medium-Sized Entrepreneurs does not cause losses, whereas the sustainability business (GSCM) practice has a positive influence in terms of corporate finance because there are more productive and efficient strategies within the practice, and it causes positive influence on the company's environmental performance with minimal environmental impact.

Limitations and Recommendations for Future Research

This study has several limitations and suggestions for future research. Firstly, this research is non-experimental or longitudinal research, but it is an explanatory study with a period of only 1 year (2018) so that it cannot describe the dynamic movement of an object over a long period of time. Secondly, this research was only carried out in one regency

in Indonesia (Pasuruan Regency), which also involved government regulation variables with regional regulation indicators, so that the results of this study cannot be generalized with research conducted in other regions since each region has its own different regional government policies.

Measurement tools for financial performance should be objective, accurate, and official. It is because this research was conducted on small and medium enterprises which generally do not publish company financial statements. The financial performance variables are measured based on the subjective views of managers. Future studies are expected to confirm the results of this study by conducting research on large companies that have published annual financial statements.

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