

CHAPTER I

INTRODUCTION

1.1 Research Background

The current environmental conditions are impaired due to industrial activities that have been going on for a very long time. The impact of industrial activities on the environment can be seen, including global warming, groundwater pollution, forest fires, and the depletion of the ozone layer (Chang, 2011). The world is starting to pay attention to this problem which is then seen from various world meetings to discuss environmental sustainability, such as the Kyoto Protocol, Waste and Electronic Equipment (WEEE), the Montreal Conference, and the cessation of the use of certain hazardous substances. (Chen et al., 2006). Furthermore, the efforts made by the Government of Indonesia are through implementing regulations governing environmental issues. These regulations are regulated in Law no. 40 of 2007 concerning Limited Liability Companies. Law No.40/2007 stipulates that businesses operating in and/or exploiting natural resources must carry social and environmental responsibilities.

Advances in technology encourage investors to consider other factors besides the firm's financial position to invest. In this case, one of the nonfinancial factors that investors consider is the firm's environmental performance. Investors can take advantage of environmental performance in determining the value of firm shares (Christoffersen et al., 2013). This opinion is in line with Burnett et al.(2011). They stated that investors have confidence that investing in the environmental sector in the short term will increase company costs, but in the long term, it will increase value and firm performance. This is also shown by research conducted by Rezende et al. (2019) multinational companies that green innovation has a positive effect on the firm financial performance in the long term, in this study, the increase in financial performance is explained to appear 2-3 years after the firm has a green patent.

Going green has become an important issue for business people. This statement is in line with (Weng et al., 2015).They stated that regulations issued by the government regarding the environment, resources, and business competition

make companies innovate. The innovation aims to keep the company running its activities. In addition, if the company wants to continue operating, the company must meet government requirements in its business operations. In this case, green innovation is an approach that can be applied due to increasing environmental pressure (Sezen & Çankaya, 2013). Green innovation is considered a company advantage reflected in the uniqueness and differentiation of environmentally friendly products. These advantages can also improve performance, as seen from the increase in firm profits which can be assessed by *Return on Equity* (ROE) and *Return on Assets* (ROA) (Przychodzen & Przychodzen, 2015).

Chen et al. (2006) placed green innovation into two main categories, namely green product innovation and green process innovation. Green Product refers to the creation of goods with a little positive or negative effect on the environment (Fabien Durif Caroline Boivin Charles Julien et al., 2010). Green Process refers to a company's manufacturing operations that are carried out without using hazardous chemicals to create environmentally friendly products (Fitriani, 2015). According to Ramanathan et al. (2010), the introduction of environmental rules will have an impact on production costs. They further added that the introduction of the environment makes the company more efficient in the long run. In addition, the application of green innovation has an impact on the company's competitive advantage (Küçükoğlu & Pınar, 2015).

Stakeholder theory suggests that companies that care about the environment, maintain a balance between corporate values and social values, and seek social improvement will receive more attention from stakeholders, who then have an impact on providing full support for company operational activities (Gray et al., 1995). This is in line with the opinion Carrión-Flores & Innes (2010) that product innovation with technology that can reduce environmental pollution and use of resources will give companies the ability to compete and increase growth, productivity, and profits. By carrying out these innovations, companies can reach consumers concerned about the environment with higher purchasing power (Aguilera-Caracuel & Ortiz-de-Mandojana, 2013).

Some of the results of previous studies, for example, Küçükoğlu & Pınar (2015) found that green innovation affects firm performance and has a significant

effect on environmental performance and competitive advantage. However, environmental performance is shown to be more influenced by green innovation than a competitive advantage. Fitriani (2015) provide evidence that green innovation product does not affect competitive advantage. Meanwhile, the green innovation process has an impact on competitive advantage. Zhang et al. (2019) show that there is a positive and significant relationship between green innovation and firm performance. Consistent results show an association between green innovation and firm performance, and there are studies conducted by Ar (2012) showing that green product innovation positively affects firm performance and competitive company capability. However, this study shows that green innovation has a more significant effect on competitive capability than firm performance.

Based on previous studies and the phenomena described above, researchers are interested in providing empirical evidence of the effect of green product innovation and green process innovation on firm performance. From the phenomena described above, this research needs to be conducted to determine whether manufacturing companies in Indonesia have implemented the concept of green innovation in their processes and production results.

1.2 Problem Statement

Based on the background that has been presented above, the formulation of the problem in this study is as follows:

1. Does the green innovation product affect the firm performance?
2. Does the green innovation process affect firm performance?

1.3 Research Objectives

Based on the formulation of the problem above, the purpose of this research is to:

1. Provides empirical evidence that green innovation products have a positive effect on firm performance
2. Obtain empirical evidence on the effect of green process innovation on firm performance

1.4 Research Benefits

This research is expected to provide benefits in the future as follows:

1. Companies can understand the importance of implementing the concept of green innovation, namely by producing environmentally friendly products, the company can help preserve the environment so that company gets a good response from the public (stakeholders), so the company can produce a better performance which can be seen from the increase in profit.
2. For the public, so that they are educated about the condition of the natural environment to products that are used daily, as well as the impact of the production process carried out by the company on the environment.
3. Researchers provide empirical evidence for researchers about the concept of green innovation and how it affects firm performance.

1.5 Systematics Discussion

Writing in this study will be arranged based on the description or systematics as follows.

CHAPTER I: INTRODUCTION

This chapter discusses the problems and issues underlying why this research was conducted. In this section, there is a description of the background, problem formulation, research objectives, and writing systematics.

CHAPTER II: LITERATURE REVIEW

This chapter describes the basic theory used in research development. The basic theory in this is obtained from the literature and discussion of similar previous research results. The theories used in this study include stakeholder theory, legitimacy theory, firm performance, the relationship between green product innovation and firm performance, and the relationship between firm performance and green process innovation. This chapter also describes the research hypotheses and the conceptual framework to be tested.

CHAPTER III: RESEARCH METHODS

This chapter contains an explanation of the operational implementation of the research. Research variables and operational definitions, determination of samples, types, and sources of data, methods of data collection, and methods of analysis to be used are also explained in this article. The independent variables in this study

are green product innovation (*PRODUCT*) and green process innovation (*PROCESS*). Firm performance (ROA) is the dependent variable in this study, while firm size (*SIZE*) and firm age (AGE) is the control variable in this study.

CHAPTER IV: RESULTS AND DISCUSSION

This chapter contains a discussion of the problem under study, complete with variables related to the research problem, as well as the analysis and data used.

CHAPTER V: CONCLUSIONS AND SUGGESTIONS

This chapter presents the conclusions drawn from the analysis results and suggestions for future research.

