

## Chapter 27

# Regression Analysis for Environmental Practices: Participation among Finnish SMEs

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### ABSTRACT

*The aim of this research is to shed light on establishing a successful integration of environmental practices among small and medium enterprises (SMEs). The purpose is to develop a better understanding of what drives SME participation into potential environmental practices within a context in Finland. Specific objectives are to: 1) assess the willingness to participate (WTP) among Finnish SMEs based on four drivers - financial performance, internal readiness, supplier pressure and governmental regulations; 2) separate respondents into demographical subgroups based on their WTP; and 3) determine features that characterize Finnish SMEs which are WTP based from the studied sample.*

### INTRODUCTION

There has been increasing pressure from public institutions, consumers as well as non-governmental agencies regarding environmental performance of business industries due to their association as being the most visible contributor to environmental pollution. In such conditions, firms have begun to enhance competitiveness through environmental performance by minimizing environmental impact in their business activities. Despite emerging literature on various justifications on factors influencing firms in green participation, the emphasis is mostly on large firms while SMEs remain relatively unknown. SMEs are a source of job creation and introducing innovation and competition to the market; however, it is estimated that SMEs account for around 60 percent of carbon dioxide emissions (Revell & Blackburn, 2007). In

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addition, they also contribute 70 percent of the total global pollution (Aragón-Correa & Sharma, 2008). According to previous research, little attention was paid to SMEs which represent suppliers within the supply chain. As a result, SME suppliers can be treated as missing links between SME environmental management and green issues in the supply chain management.

Most Finnish SMEs in the manufacturing sector are part of the value chain of domestic large companies. In order to compete globally, large companies have to fulfill the growing needs of environmental practices in their operations. In order to remain in the value chain, SMEs have to incorporate green elements in their operations as well. The government has played their role in providing a number of incentives to assist in the installation of environmental practices among the SMEs. However, it is interesting to note that a relatively high proportion of firms receiving public support have yet to be translated into a higher proportion of SMEs offering these products or investing in resource efficiency (DG Enterprise and Industry, 2014).

Therefore, the aim of this study is to develop a better understanding of drivers that can influence potential environmental practices in the context of Finnish SMEs because each country has their own particular characteristics such as policies, natural assets and technological capabilities. The objectives are to:

1. Assess the willingness to participate (WTP) among Finnish SMEs based on four drivers - financial performance, internal readiness, supplier pressure and governmental regulations which were highlighted in the literature
2. Separate respondents into demographical subgroups based on their WTP
3. Determine features that characterize SMEs that are WTP based from the studied sample.

The study addressed two important gaps in literature from the perspective of the practitioner and academia. It is essential for practitioners to recognize the driving factors of green participation for the benefit of future strategy formulation as well as to extend knowledge from a new point of view in the academia based on a sample from Finnish SMEs.

This study gave rise to a current discussion out of existing studies with an extension on the influence of financial performance on Finnish SMEs toward their WTP in environmental management. The conceptual model was partly based on a framework by Lee (2008) with an additional variable focusing on the influence of financial performance. The study attempted to find out the possibility of financial performance to become an antecedent to WTP in environmental management.

## **BACKGROUND**

The Small Business Act (SBA) for Europe conducts a review of the act annually to provide a better understanding of recent trends and national policies related to SMEs in Europe. According to the DG GROW (2015), the estimated number of Finnish SMEs was 219,584 which covered 63.7 percent of the employment rate in Finland and did not include enterprises within agriculture, forestry, fisheries, education and health industry. This implies their importance as a job creator and contributor to national value added industries. Finland being one of the Europe Union (EU) member states is not excluded from being monitored in policy measures which incorporate ten principles including environmental factors. In a nutshell, the 2013 review indicated that the environmental performance of Finnish SMEs were all

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