UNIVERSITY OF MACAU

FACULTY OF BUSINESS ADMINISTRATION

THE IMPACT OF CORPORATE ENVIRONMENTAL PERFORMANCE ON FINANCIAL PERFORMANCE: EVIDENCE FROM CHINA

Kuang Muzhen

MB043061

Thesis presented to the

Faculty of Business Administration

University of Macau

In partial fulfillment for granting the MSc in Finance Degree

2012

The Impact of Corporate Environmental Performance on Financial Performance: Evidence from China

Abstract 1
1. Introduction 2
2. Literature review 6
2.1. Financial performance and corporate environmental performance 7
2.2. Leverage and corporate environmental performance 10
2.3. Profitability and corporate environmental performance 12
2.4. Efficiency and corporate environmental performance 13
2.5. ISO 14001 EMS certificates as a measure of corporate environmental performance 14
2.6. State ownership and corporate performance 15
3. Hypothesis formulation 17
4. An overview of ISO 14001 EMS standards 20
5. Change of financial performance after ISO 14001 EMS certifications 23
5.1. Data, Measurement and Sample distribution 23
5.2. Summary statistics 28
5.3. Correlation coefficients 29
5.4. T-test 29
6. Panel regression results 30
6.1. The impact of ISO14001 EMS certificate on ROE 30
6.2. The impact of ISO14001 EMS certificate on leverage 35
6.3. The impact of ISO14001 EMS certificate on profit margin 38
6.4. The impact of ISO14001 EMS certificate on asset turnover ratio 41
7. Conclusion and Implications 44
References 48
Figures and Tables 53

The Impact of Corporate Environmental Performance on Financial Performance: Evidence from China

Abstract

There has been a long-standing debate on the relation between corporate environmental performance and financial performance. I hand collect the data concerning the certification status of ISO 14001 environmental management systems (EMS) for China's listed companies in three heavily polluting industries. I use this ISO certification to proxy for better environmental performance and return on equity (ROE) to measure financial performance. I examine (1) whether improved corporate environmental performance enhances the financial performance; (2) how environmental performance affects financial performance through affecting leverage, profitability (profit margin), and efficiency (asset turnover ratio) drawing on Du Pont analysis. Overall, I find a positive relation between ISO certification and ROE. Furthermore, I find that ISO certification is associated with lower leverage, higher profit margin and higher asset turnover ratio. This suggests that the increases in profitability and efficiency overweight the reduction in leverage, resulting in a net improvement of ROE. My study provides new evidence from China to support the positive relation between environmental performance and financial performance, and has important implications for Chinese policy makers concerning environmental regulations.

Key words: corporate environmental performance, financial performance, leverage, profitability, efficiency