

*The Hong Kong Polytechnic University*  
*Department of Logistics and Maritime Studies*  
*Research Seminar*

**Two studies in firm voluntary management systems:  
The impact of ISO 14001 adoption on firm performance**

by

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**Date: 15 May 2019 (Wednesday)**  
**Time: 11:00am-12:00nn**  
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**The Hong Kong Polytechnic University**

**(Conducted in English)**

**Abstract:**

The first study probes into the impact of voluntary environmental management systems (i.e., ISO 14001) adoption on operational risk in terms of regulatory violations and causalities. Traditionally, in the field of operations management, scholars pay more attention to economic benefits and risks, but the costs hidden behind economic and efficiency-based benefits, such as the damage to health and the loss of lives are less noticed. Furthermore, as firms may adopt ISO 14001 to meet with legitimacy or efficiency ends, we examine the moderating effects of government monitor and slack resources. Based on a matched sample of 880 firms in China, we employ the difference-in-difference model and find that ISO 14001 adoption can significantly reduce operational risk. The effectiveness of ISO 14001 adoption is more pronounced in reducing the risk of environmental casualties for firms under government monitor. However, for firms having abundant slack resources, the negative impact of ISO 14001 adoption on the risk of regulatory violations is undermined. A series of tests, including the event study method, are employed to verify the robustness of the results.

The second study aims to empirically examine the question: Does it pay to be green? A common issue in previous studies is that they focus on direct and immediate financial outcomes of ISO 14001 adoption. Less is known whether ISO 14001 adoption can lead to underlying and long-term outcomes, such as maintaining stability and boosting growth. We investigate how ISO 14001 certification as a signal perceived by investors and customers affects financial risk and market growth. The contingency factors of certification time and the industry pollution level are also examined. We construct a quasi-treatment and a control group of 684 firms using propensity score matching and test the hypotheses using the difference-in-difference model. The results indicate that ISO 14001 adoption decreases both financial risk and sales growth, suggesting a trade-off effect. Early certification time amplifies the conflict between financial risk and market growth. The negative impacts of ISO 14001 adoption on financial risk and market growth are both strengthened for early certified firms. Being in heavy polluted industries, however, reconciles the contradictory. Firms in high polluted industries benefit more from the negative impact of ISO 14001 adoption on financial risk, while suffers less from its harm on market growth.

**Bio:**

Yuxiao Ye is a Ph.D. student under the co-supervision of Prof. Andy C.L. Yeung and Prof. Baofeng Huo. Her research interest is empirical research in operations and supply chain management.

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**All are welcome!**