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Environmental Performance of Cement Industry in Vietnam: The Influence of ISO 14001 Certification

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Abstract

The cement industry is one of the oldest and most important industries in Vietnam's developing economy. It is also one of greatest environmental polluters, especially in terms of air pollution. Several causes contribute to the adverse environmental impacts of cement industry, including backward technology (many factories use stand kiln production technology), weak environmental management, and lack of environmental awareness, etc. To reduce environmental impacts of industries and improve environmental performance, the Vietnamese Government encourages introducing ISO 14001-based environmental management systems into businesses. While much has been written on Western experiences, there are hardly documentation and analysis the effectiveness of ISO 14001 in Vietnam. This research examines the influence of the international ISO 14001 norm in the environmental performance of Vietnam's cement factories. The study focuses on: i) finds out the changes in environmental performance between pre- and post- 14001 certification; ii) compares the environmental performance between certified and uncertified cement factories. The impact of ISO 14001 certification on the industry is studied by using a self-assessment questionnaire survey mailing to 56 factories in the whole country and the response rate is 26% overall (15 factories). In additional to the self-assessment, the annual environmental data, focusing on air emission from 15 responses are used. For the management performance, the preliminary results demonstrate that the environmental awareness and attention among certified factories was clearly better than those in uncertified factories. For the operational performance, the results show that there is no clear different between certified and uncertified group as well before as after adopting the ISO 14001 standard. The emission values are all below the Vietnamese National Standards for Air Quality. These results advocate the need for more research on environmental management systems, to explore the causal links between EMS and environmental performance in Vietnam.

Keywords: Environmental management systems; ISO 14001, environmental performance.