

Meeting the Green Challenges and Opportunities of Hong Kong Manufacturers in China's Belt and Road Pathway: Experiences from the Pearl River Delta

Ning Liu, Carlos W. H. Lo, Pansy H. Y. Li

As ecological, societal, and political demands to reduce pollution have steadily increased during China's quest for sustainable development, Hong Kong manufacturers must develop strategies to build and enhance their corporate environmental management capacity in order to survive and prosper in these challenging contexts. Their environmental management capacity affects the extent to which Hong Kong manufacturers can seize the opportunities of the "One Belt, One Road" initiative unveiled by the Chinese government in 2013 to foster inter-regional cooperation among related countries and regions. This paper examines the evolution of their efforts to operate their manufacturing plants in the Pearl River Delta Region in a more environmentally friendly manner, in order to shed light on their capacity and preparedness to pursue a green path of industrial development along the Belt and Road region.

Beginning in the 1980s, Hong Kong manufacturers began contributing to environmental degradation in the Pearl River Delta (PRD) Region when they relocated their polluting operations from Hong Kong to various locations there. In response to serious pollution problems nationwide, the Chinese government has been imposing ever-stricter regulatory control over polluting activities, creating compliance challenges for Hong Kong manufacturers. Local communities have also become more concerned about industrial pollution, and local protests against industrial polluters have become common occurrences nationwide. Drawing on two rounds of a questionnaire survey conducted in 2007 and 2014 respectively with respondents from members of the Federation of Hong Kong Industries with manufacturing operations in the PRD Region, we examine the changes that have taken place in corporate environmental management in these two periods under growing pressure to regulate polluting activities. On this basis, we assess how much headway Hong Kong manufacturers have made in greening their manufacturing operations. Their greening experiences will shape their corporate strategies and operations in managing their environmental footprints in future industrial investment projects in other Belt and Road localities.

In the empirical investigation, we focused on changes that occurred over time in two major aspects: (1) Hong Kong manufacturers' environmental initiatives/performance and likely outcomes, and (2) internal and external factors that explaining the firms' green behaviours. First, in the 2014 survey Hong Kong manufacturers expressed a stronger belief that their operations in the PRD region were having a trivial impact overall on the natural environment, compared to enterprises in the mainland. Although their pollution emissions remained largely unchanged during the period between the two surveys, they considered themselves to be more environmentally friendly and to have made greater efforts to reduce environmental externalities than other enterprises in the industry. Such changes were mainly reflected in a reduction in their consumption of mineral resources and in their greater adoption of environmental practices such as sponsoring events about environmental protection, incorporating ecological themes when marketing some of their products, conducting routine environmental audits, and participating in

voluntary environmental programmes. The motivations that they expressed for engaging in these efforts remained consistent over the two surveys, but they became less confident in believing that better environmental protection measures would increase the customer base for their products or would allow them to attain a competitive advantage over their nearest competitors.

Second, with regard to internal factors that explain the environmental footprints of Hong Kong manufacturers, we detected both visible organizational stabilities and changes. The attitude of top management towards environmental protection remained at a stable high from 2007 to 2014. Their awareness grew of several particular environmental concepts/frameworks, including full-cost accounting, life cycle analysis, clean production technologies, and clean development mechanisms. In general, there was greater top management support for and employee awareness of environmental issues. At the same time, barriers to accessing related information and technologies also decreased. Regarding external demands, Hong Kong manufacturers stated that they were coming under greater pressure from various stakeholders, who were demanding that they develop better environmental protection measures. In particular, they believed that it was becoming significantly easier for local environmental protection bureaus to detect regulatory violations.

Overall, this research provides important insights on how Hong Kong-based enterprises have been continuously adjusting their corporate environmental management strategies and practices in response to growing local demands for cleaner production, in the direction of pursuing green manufacturing operations to achieve environmental corporate citizenship. By observing the effects over time of the various green technical programmes and managerial initiatives adopted by Hong Kong-owned enterprises in the PRD region, our study has both managerial and policy implications for the adoption of a green strategy and operations by Hong Kong manufacturers in their future industrial investments along the Belt and Road localities.