

# Review and proposed eco-process innovation performance framework

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## ABSTRACT

Rapid growth of industrial activities throughout the world has resulted in an ever-worsening environmental degradation. Manufacturers must be proactive on environmental issues and link their operations beyond the economic rewards, to consider environmental and social impacts in their processes. In the manufacturing sector, eco-innovation has been recognised as an essential tool for addressing the growing economic, environmental and social concerns and at the same time supporting the achievement of sustainable development target. Eco-process innovation (a type of technical eco-innovation) tools and techniques should be implemented to change the perception that manufacturers are contributing to the negative environmental impacts to the belief of improving society's standard of living and environmental quality. This paper presents the results of an extensive systematic literature review on 45 empirical researches relating to eco-process innovation published from 2006 to July 2017. They were analysed in terms of research patterns, measurement aspects, approach and performance indicators employed by previous researchers. The analysis indicate a compelling reason to develop and propose an instrument able to measure operational economic, environmental and social performance of eco-process innovation. This review resulted in a conceptual framework for measuring eco-process innovation performance in manufacturing firms which serves as an essential fundamental prior to conducting studies in developing an improved instrument for assessing eco-process innovation performance. Future research is in the throes of conducting a case study for verifying this eco-innovation framework that will be useful to manufacturers.

## KEYWORDS

Eco-process innovation; performance indicator; manufacturing firm; systematic literature review

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