Assessing drivers of post-harvest losses: tangible and intangible resources' perspective

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Abstract

Many stakeholders in agro-food industry are concerned about sustainability, especially in addressing post-harvest loss (PHL). However, resources available to various supply chain stakeholders such as in the raw cashew nuts (RCNs) supply network to address PHL remain a challenge. The extant literature on PHL has limited intricate insight into its drivers from the perspective of resources. This paper, focusing on RCNs supply network, systematically identifies and analyzes critical drivers that influence PHL guided by tangible and intangible resources' perspective. Fuzzy-Decision Making Trial and Evaluation Laboratory (Fuzzy-DEMATEL) methodology was employed to analyze and convert an experts' judgment into quantifiable data to establish the causal relationship among the drivers. The findings reveal that urgent and short-term attention to address PHL in the RCNs supply network should be given to the primary tangible driver of lack/insufficient proper packaging materials. Furthermore, in medium-term strategies, RCNs suppliers and government agencies in-charge of agriculture and industry bodies need to surmount three key cause drivers consisting of premature/green harvesting of cashew nuts, financial and economic constraints and lack of appropriate storage facility. In addition, drivers such as insufficient/lack of management support and commitment and lack of information dissemination on PHL within RCNs suppliers should be addressed in the long term. The study provides a framework for supply chain managers and policymakers to understand the interrelationship among PHL drivers from a resource perspective to enable the implementation of strategies that address PHL.