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Do sme food processors with certification perform better than those without? A case study from kyrgyzstan

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Abstract

Dried fruits and nuts, mainly from forests and, to a lesser extent, agroforestry systems in Central Asia (CA), constitute the primary source of income for local households and small and medium food processors (SMEs). While demand for sustainably produced and certified food products is growing globally due to rising living standards, food processing SMEs in CA often do not yet fully exploit and benefit from such opportunities. In addition, considering the high costs of implementing Environmental and Social Standards (ESS), processing SMEs are unsure about their potential strategic advantages. Drawing on comparative case study methodology and the Resource-Based View theory, the paper investigates how ESS adoption affects economic, environmental, and social performance across various enterprise types in the fruit and nut processing industry in CA.

Qualitative data were collected from six processing SMEs in Kyrgyzstan through semi-structured interviews, field observations, and internal document analysis. During the analysis, three distinct types of SMEs were identified based on their certification status and organisational form: (1) individually certified private SMEs, (2) group-certified cooperatives, and (3) non-certified SMEs. Across these cases, the study finds that ESS affect performance through three core mechanisms: (1) improved supply chain coordination, (2) formalisation of internal documentation and process control, and (3) enhanced market access and price premiums.

Individually certified SMEs successfully transformed ESS requirements into firm-specific capabilities, achieving improvements in operational efficiency, product traceability, export competitiveness, and labour conditions. Group-certified cooperatives demonstrated stronger environmental outcomes due to their collective structure and donor-supported training programs, yet faced challenges in institutionalizing economic and social gains due to limited managerial capacity and short-term support. Non-certified SMEs showed limited performance outcomes, constrained by informal practices, weak market access, and minimal environmental or social engagement.

These findings underscore that while ESS can serve as catalysts for multidimensional performance improvements, their effectiveness is conditional on internal absorptive capacity, managerial competence, and continuity of external support. The study concludes with practical and policy recommendations for enhancing the transformative potential of ESS in agri-food value chains, including certification subsidies, managerial training, export facilitation, and institutional support for cooperative development.

Keywords: Agri-food sector, Central Asia, dried fruits, environmental and social standards, environmental sustainability, Kyrgyzstan, nuts, sme performance, social impact