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Bridging competency gaps for sustainability managers in food systems

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Abstract

The transformation of food systems towards sustainability requires professionals equipped with diverse and context-specific competencies. However, limited integrative evidence exists on how these competencies are defined, developed, and applied across different contexts. This study contributes to advancing a competency framework for sustainability managers and changemakers in the food sector by synthesizing insights from multiple empirical sub-studies spanning labour markets, higher education, and stakeholder engagement.

The research integrates (1) content analyses of sustainability-related job advertisements and in Iran and Ghana (2) qualitative interviews with alumni of the International Food Business and Consumer Studies (IFBC) programme at the University of Kassel, (3) survey-based insights from current IFBC students, and (4) outcomes from a stakeholder workshop (WiTA) on competencies for sustainable food systems held in Giessen, Germany. These complementary data sources capture competency demands, educational outcomes, and practice-oriented perspectives across different stages of professional development.

Findings reveal convergence around key competency domains, including systems thinking, strategic management, implementation skills, and interpersonal competencies. At the same time, significant misalignments emerge. Labor market analyses indicate an underrepresentation of anticipatory, normative, and integrative competencies, despite their importance for addressing complex sustainable food system challenges. In contrast, higher education programmes effectively foster values-based and interpersonal competencies but show limitations in developing technical and implementation-oriented skills, such as life cycle assessment, carbon accounting, and regulatory compliance. Insights from alumni, students, and stakeholders further highlight difficulties in translating theoretical knowledge into practice, pointing to an “operational bottleneck” in competency application.

By integrating perspectives from employers, graduates, students, and practitioners across different geographical contexts, this study identifies critical gaps between competency demand, development, and application within food systems. The proposed framework provides empirically grounded insights for aligning curricula, industry expectations, and capacity-building initiatives to strengthen sustainability leadership and support transformative change in the food sector.

Keywords: Food systems transformation, higher education, labour market analysis, stakeholder engagement, sustainability competencies