A FOOD MANUFACTURING PERSPECTIVE ON FRAMEWORKS FOR SUSTAINABILITY ASSESSMENT AND REPORTING

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Abstract

Sustainability assessment of the food supply chain and its members is instrumental in achieving a sustainable food future. Despite being influential members of the food supply chain, no comparison of sustainability frameworks from the supply chain perspective of food manufacturers has been conducted so far. This research investigates the suitability of seven sustainability frameworks for food manufacturing companies by evaluating their connectivity to the up- and downstream food supply chain as well as their food sector specificity. The findings show that none of the frameworks fulfils both food sector specificity and full integration into the up- and downstream supply chain, calling for further research on more harmonized and integrated sustainability assessment throughout the food supply chain.

Keywords

Sustainability assessment; Food manufacturing; Food supply chain; Sustainable supply chain

1 Introduction

Food chains play a prominent role in transforming our world towards a sustainable future (ROCKSTRÖM et al., 2020), which is not exclusively driven by obvious environmental effects but also by socio-economic conditions (VERMEULEN et al., 2012). Consisting of agricultural producers (farmers), manufacturers, wholesalers, retailers, food service providers and consumers, the food supply chain embraces different actors and levels. Despite agriculture's dominating role in many environmental and socio-economic aspects, a sustainable supply chain can only be created by the collaboration of all actors (SEURING and MÜLLER, 2008). For example, the sustainability-driven selection of suppliers (farmers) by buyers (food manufacturers) can improve supply chain sustainability (CHAE et al., 2017). Not only responsibilities but also actions need to be defined and prioritised. Sustainability assessment and management tools are used as corresponding instruments (SALA et al., 2015). We, therefore, explore the suitability of seven frameworks for the food supply chain from a so far neglected perspective of a food manufacturer as well as the frameworks' connectivity towards the down- and upstream supply chain.

2 Method

The exploration is based on a comparison of seven, mostly globally applied, sustainability frameworks. Only frameworks which take a multi-dimensional perspective on a food manufacturer's corporate sustainability are investigated. Tools applicable to only a part of the sector are not in the scope of this paper. Standards considered are Global Reporting Initiative (GRI) standards, Sustainability Code (SC), B Impact Assessment (BIA), ZNU Standard - Driving Sustainable Change (DSC), Sustainability Assessment of Food and Agriculture Systems (SAFA), Sustainability Monitoring and Assessment RouTine (SMART) – sustainability check, and Economy for the Common Good (ECG).

3 Findings & Discussion

The frameworks all have their own potential and can lead to thorough corporate engagement with sustainability. However, this comparison shows that where evaluation and communication are strong (s. table 2 and 3; ECG, BIA, GRI) or a management system is established (DSC),

concrete integration of the upstream supply chain and food-specific content is missing (s. Table 1). Where content is comprehensive and tailored to food sector needs (cp. table 1; SAFA, SMART) evaluation (cp. Table 2) and communication (cp. Table 3) is lacking; ultimately neglecting the downstream supply chain. Consequently, a holistic (VERMEULEN *et al.*, 2012), and harmonized (SCHADER *et al.*, 2014) framework, applicable to a food manufacturer catering the needs of the whole food supply chain, is still to be developed or rather created from the promising existing.

Table 1: Exemplary inclusion of food-sector relevant topics

	BIA	ECG	DSC	SAFA	SMART	GRI	SC
Soil and Land	(✓)	-	✓	✓	✓	-	-
Biodiversity	✓	-	✓	✓	✓	✓	(✓)
Animal Welfare	-	(✓)	✓	✓	✓	-	(✓)
Indigenous rights	-	-	-	✓	✓	✓	-
Product information & safety	✓	✓	✓	✓	✓	✓	-
✓: criterion/topic; (✓): mentioned in guidelines but no criterion; -: not mentioned							

Table 2: Assessment and audit type of the investigated frameworks

		DSC	ECG	BIA	SAFA	SMART	GRI	SC
Self-Assessment	Without score						✓	✓
	With score		✓	✓	✓	✓		
Audit	External verification				✓			✓
	Certification	TPC	SPC	SPC			TPC	
SPC=Second party certification; TPC= Third party certification								

Table 3: Communication of investigated frameworks

	DSC	ECG	BIA	SAFA	SMART	GRI	SC
Report		✓	✓	$✓_{B2B}$		✓	✓
Result		✓	✓	$✓_{B2B}$			
Standard	✓						
Label (L), Signet (S)	S		L, S				S
Other	Register	Map	Register			Database	

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