

UNIVERSITÀ CATTOLICA DEL SACRO CUORE

Sede di Piacenza

Dottorato di ricerca per il Sistema Agro-alimentare

Ph.D. in Agro-Food System

Cycle XXXVI

S.S.D. SECS-P/07 ECONOMIA AZIENDALE



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Sustainability practices, disclosure and performance assessment: evidence from the meat supply chain

Coordinator:

Ch.mo Prof. Paolo Ajmone Marsan

Candidate:

Andrea Caccialanza

Matriculation n: 5014541

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Tutor:

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Introduction

The analysis of the impacts generated by economic activities is one of the topics of greatest attention from the research to the corporate perspective (Kamble et al., 2020). Numerous studies have confirmed that overall human activities have a climate-altering effect on the surrounding environment, as well as both a direct and indirect social impact (Conca et al., 2021; Secundo et al., 2022). It is therefore crucial to pursue a correct transition towards sustainable production models to understand which practices and drivers have the greatest impact in the promotion of this holistic approach to performance measurement (Dienes et al., 2016; Ibáñez-Forés et al., 2022).

Therefore, the search for a renewed balance between modern production systems and the growing products demand is continually challenging current production systems in order to achieve more sustainable development models (Adams et al., 2021). This challenge is being met by both policy makers and production systems with an awareness of the need to set ambitious targets for the ecological transition of production chains (Caiado et al., 2017; Lai and Stacchezzini, 2021). This awareness has been further consolidated and promoted by various plans, both national and international, for combating the anthropogenic effects on the climate and its alterations (Adams & Mueller, 2022; Ernstberger & Grüning 2013). In this regard, one of the best known and most widespread programmes is the one promoted by the United Nations (UN) through the 17 Social Development Goals (SDGs) of 2030 Agenda, as well as by the European directive(s) that severely impacted the regulation and the diffusion of non-financial disclosure on the accountancy perspective (e.g., EU Directive 2014/95; Corporate Social Responsibility Directive (CSRD), 2022). The progressive increase of the world population represents in this context an additional element of stress for the achievement of these objectives by the production systems (Statista, 2021). In particular, this thesis will focus on the discussion of those elements that have emerged as prevalent for the context of a specific production chain. The choice to focus on a single supply chain stems from the opportunity to highlight the peculiarities of that value chain, as well as having the opportunity to analyze its distribution aspects without compromising the sustainability of the individual

dimensions involved (Kumar et al., 2022; Weber & Saunders-Hogberg, 2018). In this context it is therefore interesting to understand how agri-food production systems can be able to meet the growing food demand by triggering, at the same time, a more integrated strategic approach linked to the pursuit of sustainability and ecological transition targets (e.g., the UN 17 SDGs) in the medium and long term (Garner & Ayala, 2018). For this purpose, it must necessarily be associated with processes and tools capable of effectively measuring the overall performance and learning effects of individual production units and their supply chains (Derchi et al., 2021) and engage a forward-looking perspective (León-Bravo et al., 2019). In particular, the publication of a sustainability report suggests a significant interest in the disclosure of performance achieved at firm level (Abela, 2022; Erin et al., 2022).

Previous studies have confirmed the emergence of a progressive circularity in agri-food systems (Morea et al., 2023; Westerholz & Höhler 2022), as well as the impact of digital technologies (Secundo et al., 2022) and performance assessment (Kumar et al., 2022) in promoting the SDGs.

The choice of the agri-food chain as the object of analysis poses an even higher level of possible interactions to be included and evaluated. Accordingly with Kamble et al. (2020) there are significant issues that need to be addressed to achieve sustainability transparency in agri-food supply chains globally, namely: the lack of involvement of the small farmers, norms to control food safety and quality, inhomogeneous levels of automatization of processes and information inaccuracy. Through an integrated approach on several levels of the supply chain, however, it is possible to partially overcome the mentioned barriers, thanks to the possibility of tracking and reporting on the actual efforts undertaken in individual business contexts (Baumüller & Sopp, 2022).

This is particularly evident if the focus is proposed on the overwhelming prevalence of small and medium-sized enterprises (SMEs) in the processing system (Fiandrino et al., 2019) that were not nor obliged to report on their non-financial performances given the prior cap dimensions identified at European and Italian level¹. One of the most scrutinized branches of the agri-food sector throughout

¹ The European legislation (EU Directive 2014/95), transposed in Italy through Legislative Decree No. 256/2016, is to be applied to '*public interest entities*', i.e., taking as reference the distinction based on three main indicators: (i)

the European Union is the meat and cured meat sector due to the traditional production processes (Van der Merwe et al., 2019) and the ethical issues, i.e. such as animal welfare, involved (Akaichi et al., 2019).

The purpose of this thesis, therefore, can be identified in three steps that progressively aims to shed light to (i) the understanding and mapping of sustainability practices in the meat and cured meat supply chain, (ii) the evaluation of drivers for non-financial disclosure within the supply chain and (iii) the validation of a self-assessment tool for an effective measurement of the overall supply chain performance. These three purposes are organized in the subsequent dedicated chapters.

Chapter 1 comprehensively depicts the state of the art on sustainability research in the meat supply chain to advance the debate on challenges and issues associated with developing sustainable supply chain management practices. The systematic literature review of 333 articles published in peer-reviewed journals and organized the extant literature into five areas of supply chain management practices: strategic orientation, continuity, Collaboration, risk management, and proactivity. Since 2016, the meat supply chain has received increasing scholarly attention. The literature shows the diffusion of highly heterogeneous sustainability practices related to multiple management areas and levels of analysis (institutional, industry, firm). The need for integrated, multilevel initiatives involving different stakeholders becomes increasingly crucial to the transition towards more sustainable meat supply chains. This chapter highlights the importance of regulatory and stakeholder pressures in the sustainability transition. Beyond setting regulatory requirements, policymakers may facilitate the establishment of collaborations within the meat supply chain and foster the development of support services that help firms to integrate sustainability in their business models. The literature overview also alerts entrepreneurs and managers to the benefits from cooperating with their supply chain partners to navigate the industry transition and thus more effectively respond to the demands of stakeholders and to the increasing customers' awareness of sustainability issues. This analysis is the first to systematize the corpus of

the number of employees exceeding 500 and at least one of the other two thresholds (ii) the balance sheet total exceeding € 20 million or (iii) the net turnover exceeding € 40 million.

knowledge on the sustainability of the meat supply chain by adopting a comprehensive approach to analyze relevant management and agriculture literature.

Chapter 2 aims to analyse the links and potential limiting and supporting factors between sustainability actions and sustainability reporting. Comparing companies involved in sustainability actions and those whose reporting practices lack a formal reporting system, this analysis focuses on Italian small and medium-sized enterprises (SMEs) in the meat and cured meat industry, identifying the perspective (formative) that links sustainability action to communication in these SMEs. The qualitative interpretative approach, based on semi-structured interviews, highlights the relevant strengths and weaknesses concerning substantive sustainability actions and the effect of communication on them, providing implications for international and sectoral policies and management choices. Filling a gap in the SME literature concerning their approaches to sustainability reporting and action (and the relationship thereof), this chapter also introduces, as a widely used practice, ‘greenhushing’, i.e., the deliberate absence of or limited communication on effectively implemented sustainability practices or their salient results.

Chapter 3 highlights how managerial practices play the focal role of activating the potential of food supply chain’ sustainability transition. Therefore, this case study contributes to the existing literature on the on the assessment, reporting, and disclosure of value in food in food supply chain. The present study proposes an assessment tool that can disclose the real impact of managerial practices with an innovative application of the SAFA (FAO) framework within the context of the Italian meat supply chain and, thus, enabling producers to orient the transition process. To foster the (outside-in) supply chain transparency has been adopted the supply chain due diligence theoretical background. In addition, the institutional legitimacy theory has been applied as (inside-out) perspective on how companies address their contribution to production systems transition. The multiple-case study analyzes and discusses three years data of three medium and large Italian groups operating in the meat production supply chain. The discussion includes the comparison of results based on the set of 17 themes and 80 sustainability indicators proposed. In terms of contribution to the current debate, this chapter has both theoretical and

practical contributions. At first, this work extends the literature on the propensity to measure and report sustainability' performances. Secondly, this chapter fosters the promotion of sustainable managerial practices and expands the literature on managerial tools to disclose sustainability' performance.

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