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# Bolstering Sustainability Strategies In The Spanish Food Smes

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#### **ABSTRACT**

Small and medium-sized enterprises (SMEs) play a prominent role in the food sector. Based on relevant literature and empirical case data from 12 Spanish food SMEs, this paper intends to depict the specificities of these enterprises regarding sustainable business models through identifying the relevant success factors and barriers for sustainability transition. Results highlight the complexity of the nexus business model—sustainability, and its high context dependency. Profitability, cooperation and innovation emerge as particularly critical for successful sustainability transition in food SMEs. Meanwhile, limited financial resources, regulatory compliance, and external shocks come out as the major barriers. Evidence elicited from real-world examples facilitates the uncovering of pathways for establishing robust sustainability strategies based on the benefits from integrating sustainability and coping with limitations in business operations.

Keywords: sustainable transition; business model; food sector; SMEs.

### 1. Introduction

It is well-known that throughout the world the food industry is composed mostly of small and medium-sized enterprises (SMEs). In the European Union (EU), according to Food and Drink Europe (2025), in 2024 there have been 290 000 SMEs making up 99% of the entire food industry (including beverage). These businesses represent 40.1% of the EU food industry's total turnover, and 56.7% of all jobs it generates. 95.9% of these companies are with fewer than 50 employees, and 79.8% have fewer than 10 workers. The average number of employees per company in the food industry is 15 (compared to 123 in the automotive industry and 32 in engineered products) (EIB, 2019). In Spain, 96.1% of total food companies are SMEs with less than 50 employees (26 806), and 77.3% have less than 10 employees (21 576) (MAPA, 2025).

Even though food sector SMEs often still use traditional craft and small-trade business models, they can have structural advantages compared to large companies. They frequently have greater capacity of innovation assisted by their higher flexibility and independence in terms of decision-making (for instance, innovation-driven food startups are usually small or very small companies (Okpoko et al., 2022; Sippel and Dolinga, 2023). Their more simple and informal procedures allow them to be more flexible and able to adapt quickly to changing business conditions. Informal procedures also result in more flexible labor relations and less standardization. Flexible hierarchies allow senior management to develop strong personal relationships with their employees. In contrast, the small size of these enterprises creates serious limitations in terms of market scope, funding (EIB, 2019), and management skills. The lack of managerial capabilities often results in limited technical and organizational knowledge, and a lack of proper corporate governance, including in issues dealing with sustainability transition (European Commission, 2023a).

Due to their socioeconomic significance, food SMEs can and should be key drivers of green and inclusive growth. To this end, they need, *inter alia*, to shift towards more sustainable business models (SBMs) allowing both to respond to consumer demand for sustainability attributes, and to ensure compliance with fast-evolving regulations on sustainability, particularly EU policies (Common Agricultural Policy, Farm to Fork Strategy, Biodiversity Strategy, fiscal policies such as Carbon Border Adjustment Mechanism...), and in some cases also national and local specific policies.

However, transitioning from a traditional to SBMs is a very challenging process. Previous research has identified a range of barriers to integrating sustainability at business model level in food SMEs, including low financial gains, path-dependency and unexpected crises (e.g. Schaltegger et al., 2016; Long et al., 2018; Pellegrini et al., 2023). In the meantime, very limited attention has been given to the relationship between business strategy and sustainability implementation in scholarly studies with focus on food SMEs. As a result, there is a clear lack of inquiry-based knowledge about how sustainability concerns can transform the business models of food SMEs so that they are able to deliver value on a triple bottom-line balancing economic profitability, environmental protection, and social equity.

Therefore, this paper explores the under-researched phenomenon of the adoption of business model and sustainability as elements forming a new paradigm that food SMEs should incorporate in their operations (Ferrer et al., 2022). Our aim is to examine how the business model can be a driver for sustainability integration in food SMEs, based on a suggested conceptual framework for sustainability transition applied in a selection of real-world case studies in the Spanish context. Specifically, we attempt to identify key success, barriers and challenges for the transition to SBMs by elucidating sustainability strategies in the business models of the study food SMEs.

### 2. Research strategy and data collection

To achieve our research purpose, the first step has been to review a range of different literature on business models, SMEs, and sustainability transitions in the food systems. It has been hypothesized that business modelling and strategic planning are appropriate tools for benefiting from strengths and coping with limitations in food SMEs, as well as for the continuous improvement to ensure their movement toward sustainability adoption. In this context, food SMEs are urged to be more proactive regarding their environmental and social engagement, moving toward more sustainable practices following a triple bottom-line perspective. A food SME could achieve sustainable results whenever it is able to improve environmental, social, and economic performance simultaneously. Hence, the transition to SBMs would be a prominent vector to developing solutions capable of not only reducing the environmental impacts of food production, but also increasing its positive social and economic effects (Long et al., 2018; Belyaeva et al., 2020).

SBMs involve not only the production and distribution of products and services, but at the same time their mode of contributing to the improvement of environmental and social issues. In the SMBs the main elements (value proposition, supply chain, customer interface, financial model) are combined with the social and environmental dimensions of sustainability (Ulvenblad et al., 2019). Companies integrate their social, environmental, and economic activities in order to create value for their customer and society.

The sustainable outcome of a food company is based on achieving a balance between economic growth, environmental protection, and social development (Kamble et al., 2020). Accordingly, SBMs follow a triple bottom line approach and consider a wide range of stakeholder interests. They help imbedding sustainability into business purposes and processes, and act as a key driver of competitive advantage. They also can serve as a vehicle to coordinate technological and social changes with system-level sustainability (Bocken et al., 2014). Yet, the triple bottom line seeks to support more the sustainable actions of a firm which leads to more SBMs that go beyond the economic layer to more focusing on the environmental and social sides (Kwak et al., 2019). Table 1 depicts main sustainable business model architypes. The archetype perspective is ineresting because it gives indication as to possible pathways for enhancing sustainability, and groups them according to their mechanism and impact.

Subsequently, we used the archetype framework depicted in Table 1 to identify suitable examples of SMEs that could be qualified as having business models for sustainability (i.e. having specific forms of sustainability integration, e.g. generating less waste and emissions, promoting long-term health and wellbeing, etc.). We adopted the criterion that only companies with activities consistent with at least one of the archetypes listed in Table 1 can be qualified for the case study. This was considered to be the minimum requirement for inclusion within the study, because it can ensure that we have relevant and appropriate case studies allowing to understand those factors that could be considered to have aided or hindered the transition towards SBMs.

Table 1. Sustainable business model archetypes (Based on Bocken et al., 2014; Ulvenblad et al., 2019).

Construct	Mechanism and impact
Maximize material and	Do more with fewer resources, generating less waste and emissions, and
energy efficiency	fewer pollutants.
Create value from waste	Eliminate waste by turning waste into useful and valuable input in other
	production activities, making better use of under-utilized capacity
Substitute with	Reduce the environmental impact and increase business resilience by
renewables and natural	addressing resource constraints associated with renewable resources and
processes	man-made artificial production systems.
Deliver functionality	Provide services that satisfy users' needs without having to own the physical
rather than ownership	products.
Adopt a stewardship role	Pro-actively engage with all stakeholders to promote their long-term health
	and well-being.
Encourage sufficiency	Identify solutions that will reduce consumption and production.
Re-purpose the business	Prioritize the delivery of social and environmental benefits rather than
for society and the	economic benefits, through close integration between the company and
environment	local communities and other stakeholder groups. Recognize that the
	traditional business model in which the customer is the primary beneficiary
	may shift.
Develop scale-up	Deliver sustainable solutions on a large scale to maximize benefits for society
solutions	and the environment.

Following this approach, we collected data from both secondary and primary sources. We searched available studies and databases on the food sector SMEs in Spain centering on two parameters: general information about the companies including products, processes, suppliers, customers, and cost-profit elements, and 2) type of sustainability practices implemented to develop sustainable policies where sustainable value is created. According to this purposive selection mode, we have been able to develop a set of 45 SMEs with evidence of the existence of active sustainability processes incorporating initiatives consistent with the archetypes indicated in Table 1. Examples of initiatives identified include reduction of energy and water consumption, use of digital technologies for sustainability, waste reduction and circular economy, reduction of chemicals in production processes, working with sustainable suppliers, support for youth and women's employment, use of sustainable transportation, support for maintaining population in rural areas, collaboration with multiple stakeholders.

Figure 1 presents an overview of the process for evaluation and inclusion of companies in the study, from the initial scrutiny for evidence of sustainability initiatives included into company business model, up to the identification and confirmation of at least one SBM archetype.

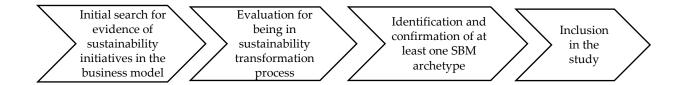


Figure 1: Overview of the process for assessment and inclusion of companies in the study.

The subsequent stage consisted of trying to contact these companies for deeper investigation of their business model shift to sustainability, and the key determinants and outcomes of this process. Finally, 12 SMEs have accepted to collaborate: three olive oil, four fruit and vegetable, and five dairy SMEs. For these companies, we collected additional data from websites, magazines, company reports and food industry databases. Moreover, structured interviews have been conducted with company representatives in separate periods of 2023 and 2024. The questions formulated dealt with the following themes: i) awareness of sustainability as a trigger for business opportunities, ii) role of sustainability in the company's business model, iii) attitude of the value chain stakeholders (suppliers, customers, regulators) toward sustainability issues, iv) impact of business gains and extra costs related to the implementation of SBMs in the company, v) impact of external shocks in the implementation of SBMs in the company, vi) vision and long-term planning for sustainability in the company. It should be stressed that throughout the whole data collection process, a special attention has been put on relating the decisions adopted by companies to integrate sustainability strategies in their business models with the factors encouraging or hindering this integration.

### 3. Findings

From combining the primary and secondary data acquired about business model strategies linked to sustainability integration, we derived the main key success factors and barriers for the transition to SBMs in the study food SMEs.

### 3.1 Key success factors for the transition from traditional to SBMs

Table 2 summarizes the main success factors that emerged from the data analysis for the transition to SBMs, and the number of companies that explicitly highlighted each factor. Factors in Table 2 are briefly defined with examples of how they can behave.

Table 2: Key success factors for the transition from traditional to SBMs.

Success factor	
Profitability - if the company is unable to survive in the marketplace, it is unable to provide the environmental and social values created via SBMs.	
Cooperation - support of actors both up and downstream in the value chain is vital to develop SBMs; engaging with major stakeholders through co-creation is required.	
Innovation – business models become more sustainable through different innovation scales: adjustment, adoption, improvement or redesign.	
Sustainability in core business functions - embedding sustainability into core business functions rather than treating it as an additional instrument.	
Digital transformation - automation or broadband networks can increase the efficiency and sustainability of operations, in addition to creating new business opportunities for food SMEs.	
Long term focus and clear narrative – this is critical for ensuring demand, successful partnerships, customer engagement, and awareness creation.	

### **Profitability**

As expected, profitability has been remarked as a major success factor in the ongoing process of integrating sustainability in business models. Indeed, this is a common factor that has been identified in

all the study companies (12). It has been highlighted that this is particularly the case during the initial years of implementing new sustainability practices in the company's business model. Distributors (wholesalers and retailers) were noted as often hindering the profitability of their suppliers (SMEs) due to their power over prices. Apparently, in most cases it is still the distributor that determines the product price. Another point that has been underlined is related to the method that the company manages its product portfolio; in particular, the extent to which the company's marketing strategy focuses not merely on selling more volume but achieving the desired balance of margins in a way that supports both profitability and sustainability goals. In any event, it should be recalled that while the critical importance of profitability seems obvious, this factor has been often ignored in studies on sustainability, where focus has been put preeminently on environmental and social outcomes (Piedra-Muñoz et al., 2016; Zopounidis and Lemonakis, 2024).

### Cooperation

Cooperation between chain participants emerged as a critical factor in meeting the economic, environmental, and social demands required in the company's value chain. This is consistent with the very nature of the food chain as essentially a network of stakeholders involved in the increasingly intricate process of producing, selling and regulating food output. An inclusive value food chain strategy is indeed mandatory to ensure sustainable consumption and production patterns. Some study companies perform collaborative work to improve sustainable practices throughout the value chain, for example, working closely with local farmers to implement organic farming practices. Moreover, as sustainability begins with agricultural production, partnerships and agreements that empower farmers and other input producers are required to ensure stable production cycles and predictable income streams. Similarly, successful food SMEs need to build robust alliances with farmers and cooperatives allowing them to face competition from larger companies with greater bargaining power. Cooperation is also required downstream in the value chain to develop SBMs, engaging with retailers and consumers often through co-creation strategies.

### Innovation

For several study companies, the fact that they do not have large budgets has been an incentive to search for creative solutions, leading to increasing their capacity for innovation for sustainability transition. Additionally, their independence (not being related to companies of bigger size or status) and flexibility in terms of capacity for adjusting operations and strategies, enabled a higher degree in their autonomy in terms of management and decision-making when it comes to undertaking or integrating sustainable innovations. Also, due to their proximity to the consumer compared to large companies (SMEs often operate in a limited geographical location), companies have more ability to offer more personalized products and services to consumers, and therefore, more adapted to their needs.

### Sustainability in core business functions

Integrating sustainability on an ongoing basis throughout the activities and decisions of the company has been emphasized as a critical determinant for achieving SBMs in rapidly evolving markets. Sustainability should not be a separate process or an add-on to the company strategies and operational procedures. It has been stated that in order to sustain a long lasting and successful business, sustainability should be integrated as a primary premise into core business functions, particularly human resource, marketing and finance functions. This success factor helps companies to shape their strategy and operations to address change, meeting expectations and requirements that arise from consumers and stakeholders while at the same time preserving profitability and competitiveness.

### Digital transformation

Digital transformation emerged as one of the major success factors for shifting to SBMs while staying competitive. Overall, study SMEs expect digital technologies to have positive economic, environmental and social impacts. It is widely accepted that the implementation of new digital technologies like platforms for e-business or artificial intelligence can help companies to reach new customers and increase revenues.

Key drivers for adoption of these technologies include efficiency gains, cost savings, and the availability of robust Information Technology (IT) connectivity and specialized training. In the meantime, while general IT and software tools are widely used in food SMEs, concerns have been conveyed about privacy, security and data control. It has been noted that while digital technologies have brought greater precision and transparency to the agri-food industry as a whole, successful SMEs need to take a tailored approach to management and production that sometimes is less automated, in order to be able to follow the company's own business model in terms of allocating resources in an efficient and sustainable way. It also has been argued that promoting a transparent and targeted policy approach for digital technologies can support broader digital adoption in food SMEs.

### Long term focus and clear narrative

It has been reported in several study companies that a clear narrative is crucial to promoting demand for products with sustainable attributes, in addition to assuring successful partnerships along the value chain. The narrative approach has been emphasized as having an important role in creating a vivid perception of sustainable values in consumers' and stakeholders' minds. In accordance with this, developing a long-term sustainability strategy with clear and achievable milestones should be prioritized over short-term gains. This strategy should be duly communicated to the company's stakeholders to gain their support.

#### 3.2 Barriers for the transition to SBMs

In an analogous fashion, Table 3 reflects the factors that were identified as barriers to the transition to SBMs in the study SMEs, as well as the number of cases stressing each factor.

Table 3: Barriers for the transition from traditional to SBMs.

Barrier	Cases
Limited financial resources – limited access to capital allocated to investing in sustainable technologies, practices, certifications	
Regulatory compliance - expensive and time-consuming dedication is needed to ensure compliance with a range of burdensome sustainability regulations and laws, including industry-specific regulations.	
External shocks — climate change, economic/geopolitical/health crises strongly affect sustainable transitions.	
Competition - competing with larger companies and other businesses with more resources or stronger brands can be particularly challenging.	
Lack of in-house expertise – in particular to develop and implement sustainability strategies.	
Customer acquisition - reaching new customers and building sustainable brands can be a complex task, especially for those who do not have the necessary resources and expertise.	

### Limited financial resources

In general, food SMEs have much fewer financial resources and more complex access to credit than large food companies. This factor has emerged as one of the biggest barriers for the company development in most study cases. It is especially the case for smaller companies, with financial institutions often are reluctant to granting loans to these businesses due to their perceived risk profile. This can make it challenging for small businesses to invest in new processes that are required to move to more sustainable operations.

### Regulatory compliance

Food SMEs must navigate and comply with heavy and fast-changing regulations related with sustainable food production and marketing, stemming from European, national or even local administrations. This can be quite costly in terms of budget and human capital, particularly for SMEs lacking sufficient resources. This factor has been stated as a significant barrier to sustainability introduction in small businesses. In this area, a clear need has been declared for policy instruments able to reduce excessive administrative burdens, and assist SMEs in streamlining the process of implementation of fast evolving regulations, especially sustainability-related ones.

#### External shocks and crises

SMEs often are more vulnerable to potential crises due to their size and limited resource capacity. In the study cases, managers were aware of the many crises that can impede growth and expansion of their companies in a sustainable manner. Climate change, the multiple geopolitical crises as well as successive supply chain disruptions were highlighted in terms of their capacity to have a negative impact, and noted as a specific barrier to the development of SBMs in food SMEs. As a result, the need for the company to prepare for all kind of uncertainties through strong contingency planning has been also pointed out. In this area, regular risk reviews allow the company to take a proactive approach to risk mitigation. Moreover, understanding the impact of crises across all the business model components allows the company to take targeted efforts to improve its overall environmental and social footprint.

#### Competition

Competition from larger companies with more possibilities in terms of funding, workforce, infrastructure and scope of action, has been noted as a significant disadvantage that SMEs will often have to deal with. Intense competition from other businesses in the same action area has also been remarked.

### Lack of in-house expertise

Difficulties in talent management have been identifies in several study cases as a barrier for moving to SMBs. Due to their limited resources and the high competition in the market for talent, hiring and retention of skilled employees can be a hard task in food SMEs. It is often challenging for these businesses to offer competitive salaries and benefits compared with larger companies. The lack of suitable expertise also is a serious handicap when dealing with cultural barriers in the transition to sustainability, particularly when resistance to change emerge from employees or management.

### Customer acquisition

Difficulties in accessing new consumers of sustainable products and services also were seen as a significant barrier to the transition to SBMs. Several study companies remarked the need to invest in customer acquisition to attract and retain consumers. The key is focusing on how to develop an overall marketing strategy capable to build brand awareness and reach new customers with products of the highest quality delivered on time. Unlike bigger firms that can rely on third-party certifications and labels (ISO standards, B Corp...), small companies may need to find other pathways to communicate the sustainable impact of their approach to consumers. One option is by developing a strong brand identity, leveraging social media and other digital marketing channels.

### 4. Discussion and implications

### Leveraging SMEs' ability to provide sustainable outcomes

A growing number of agri-food companies, mostly SMEs, demonstrate that seeking a positive environmental and social impact leads to new business opportunities. There are many examples of businesses whose business models provide healthy and sustainable food while improving their business

profitability (CSIRO Futures 2023). These companies perceive that sustainability transition can be profitable in the long term, and are fully committed to transforming their business models in order to reduce their environmental footprint, and limit their resource use. In this respect, it can be argued that there could be a reciprocal causal mechanism linking sustainability practice and economic performance. In reality, several studies (e.g., Maletic et al., 2015; Zujewski 2022) highlighted the existence of a consistent positive correlation between the level of progress of a company on an environmental or a social indicator and the level of profitability of its assets.

Economic benefits deriving from sustainable practice are largely based on more efficient operations (e.g., reduction of energy and other resources use, minimizing waste), better reputation, and innovations that differentiates business models and portfolio development (Johnson, 2020). Admittedly, this is the beginning of a large-scale change in the productive system, and the road ahead will be long. It will only become tangible with changes in consumer behavior, targeted support from public authorities and ambitious transformations by companies.

The vision according to which short-term profit constitutes the sole purpose of value chain actors is trivial because companies, to ensure their sustainability, must constantly convince their customers and employees who are increasingly demanding with regard to the products they buy, the services they request, and the organizations in which they work (Mili, 2024). A company genuinely committed to adapting its business model to make it more environmentally and socially friendly is therefore likely to increase its sales, increase its attractiveness and market share, motivate and retain its employees, as well as to hire professionals who are more selective about their future employers. Business model adaptation also have other virtues which are reflected in operational margins such as securing logistics and reducing unnecessary purchases. Sustainable actions also allow access to funding at a more advantageous cost, since investors and lenders are more attentive to the practices of borrowers.

In either case, no substantial results will be achieved without a profound change in business models and governance structures. To do this, companies must better understand their dependencies and their impact on society and devise new biusniess models, sometimes assuming costly renouncements. Transformations will also be spurred on by increasingly conscious citizens whose lifestyles will continually reconsider the values of nature and equity against pure and short-term profit.

## Overcoming sustainability challenges in food SMEs

Despite the barriers and challenges indicated above, food SMEs can be capable to successfully navigate the complexities of sustainability and build long-term growth. The strategies are multiple as are the challenges. One core point is how SMEs in the food sector can preserve the gains in efficiency and reputation without sacrificing the values of sustainability.

As seen above, one of the top barriers for food SMEs to develop SBMs is struggling with limited financial resources. Many SMEs find it difficult to access funding specifically shaped toward sustainability projects, making it difficult to invest in sustainable initiatives. Classical investors may view sustainable investments as high-risk, leading to higher interest rates or more stringent loaning criteria. Moreover, for new companies, the initial costs of sustainability actions, such as water and energy-efficient equipment or waste reduction projects, can be unaffordable. Against this backdrop, it is advisable to start with small actions and scale gradually, prioritizing investments that provide quick returns or cost savings. Small companies can explore subsidies and low-interest loans specifically designed for sustainability initiatives. Alternative financing options also could be options such as green bonds or crowdfunding platforms focused on sustainable products and practices intended for specific consumer segments.

Besides, while there is growing consumer demand for sustainable food products (European Commission, 2023b), SMEs may find it challenging to meet these expectations without endangering their planned price or quality levels. Offerings should be differentiated by highlighting unique, sustainable aspects of the company's products and values, and engage customers through storytelling. For example, small organic companies could emphasize their use of organic ingredients locally sourced, and the reduced environmental impact of its production processes.

Companies should have an awareness of the crises they are likely to face and mitigating risks through business and contingency planning. Helpful strategies to enhancing resilience could be partnering with other SMEs to pool resources and share knowledge, networking with other food producers, and seeking out the support of business accelerators.

Keeping up with fast evolving environmental and social regulations in the food sector can also be challenging for many SMEs. There is increased demand from citizens for mandatory transparency regulations and their strict enforcement, including public reporting about environmental and labor conditions. This growing public demand, in particular in developed countries, has helped to place sustainability regulation for food companies and value chains on the policy agenda (see for illustration the EU Directive 2022/2464 concerning corporate sustainability reporting (OJEU, 2022), even though enterprises usually prefer voluntary governance and oppose compulsory regulation. Companies should stay informed about relevant regulations by following relevant publications or using a software that tracks regulatory changes. Another solution is to share data and knowledge with similar businesses for reciprocal support.

The lack of expertise and knowledge to develop and implement sustainability strategies at many food SMEs can hinder the identification of the most impactful initiatives, the evaluation of sustainability performance, and tackling regulatory requirements. Cross-training employees to handle multiple responsibilities including sustainability functions could be an option to overcome this challenge without needing additional staff. Food SMEs could collaborate with partners having sustainability experts, food industry networks and associations, and local universities and research centers to gain the necessary knowledge on sustainability practices. This also can be very helpful for the cultural change within food SMEs required in shifting to sustainability-oriented business models.

### 5. Conclusion

SMEs are crucial actors in building sustainable food systems. The aim of this research was to provide insight into the drivers, constraints and challenges that food SMEs must navigate on their path toward sustainability. Findings contribute to better understanding how food SMEs respond to the challenge of sustainability in terms of business transformation, delving into practical solutions based on real-world examples. Specifically, this study contributes new insights into how food SMEs can leverage their ability to provide sustainable outcomes, and overcome barriers to shifting toward SBMs. By improving our knowledge of how sustainability objectives are implemented in food SME business models, the analysis performed also contributes to identify potential sources for sustainable value creation in these companies.

Overall, the analysis performed indicates that the link between business model shaping and sustainability adoption is dependent on a wide mix of internal and external factors, and is highly sensitive to contextual variations. The success factors and barriers identified should be incorporated into SMEs' strategic planning when considering the move towards more sustainable business. Profitability, cooperation and innovation are particularly critical for successful sustainability transitions. While the benefits of adopting sustainable practices are clear as seen above, food SMEs often face obstacles that larger firms can more easily overcome. In the pursuit of a sustainable growth, food SMEs face a set of challenges that can hinder their efforts to integrate environmental and social objectives, and ultimately develop profitable SBMs. It can be argued that shifting business models toward sustainability is to a large extent a matter of investments and structuring actions at the core of companies and their organizations, which aim to profoundly modify supply strategies, optimization of resources used, production methods, storage, transport, types of distribution, and communication and information given to customers. These investments are essential for the survival of SMEs, but they also prove to be value creators.

For future research, the investigation of more cases operating in more diverse business conditions is required for achieving further consistency and possible transferability of results to other cases. Also, the analysis of different business models of food SMEs based on the type of corporate governance, e.g. family vs. non-family ownership, would be relevant, due to the high prevalence of family ownership in this type of companies. From the methodological viewpoint, the use of mixed-methods approaches is highly

recommended, including simultaneously structured surveys, in-depth interviews, case studies, and quantitative modelling. There is also need to explore more quantitatively the relationship between innovation, sustainability and profitability.

### References

Belyaeva, Z., Rudawska, E.D., Lopatkova, Y. (2020). Sustainable business model in food and beverage industry – a case of Western and Central and Eastern European countries. *British Food Journal* 122 (5): 1573-1592.

Bocken, N., Short, S., Rana, P., Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production* 65: 42-56.

EIB - European Investment Bank (2019). Feeding future generations: How finance can boost innovation in agri-food. Available at: <a href="https://www.eib.org/files/">https://www.eib.org/files/</a> publications/thematic/feeding future generation en.pdf

European Commission (2023a). SME Relief Package. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. COM (2023) 535 final, Strasbourg. Available at: <a href="https://single-market-economy.ec.europa.eu/document/download/8b64cc33-b9d9-4a73-b470-8fae8a59dba5-en?filename=com/2023-535-1-EN-ACT\_part1\_v12.pdf">https://single-market-economy.ec.europa.eu/document/download/8b64cc33-b9d9-4a73-b470-8fae8a59dba5-en?filename=com/2023-535-1-EN-ACT\_part1\_v12.pdf</a>

European Commission (2023b). EU agricultural outlook for markets, 2023-2035. Available at: https://agriculture.ec.europa.eu/data-and-analysis/markets/outlook/medium-term en.

Ferrer, J.R., García-Cortijo, M.C, Pinilla, V., Castillo-Valero J.S. (2022). The business model and sustainability in the Spanish wine sector. *Journal of Cleaner Production* 330: 129810.

Food and Drink Europe (2025). Economic Bulletin - Q1 of 2025. Available at: <a href="https://www.fooddrinkeurope.eu/resource/economic-bulletin-q1-of-2025/">https://www.fooddrinkeurope.eu/resource/economic-bulletin-q1-of-2025/</a>

Kamble, S.S., Gunasekaran, A., Gawankar, S.A. (2020). Achieving sustainable performance in a data-driven agriculture supply chain: A review for research and applications. *International Journal of Production Economics* 219: 179-194.

Kwak, H.Y., Kim, J.S., Lee, S.T., Gim, G.Y. (2019). A Study on the Sustainable Value Generation of Mobile Messenger Service Using Triple Layered Business Model Canvas. Available at: <a href="https://ieeexplore.ieee.org/xpl/conhome/8932629/proceeding.">https://ieeexplore.ieee.org/xpl/conhome/8932629/proceeding.</a>

Long, T.B., Looijen, A., Blok, V. (2018). Critical success factors for the transition to business models for sustainability in the food and beverage industry in the Netherlands. *Journal of Cleaner Production* 175: 82-95.

MAPA – Spanish Ministry of Agriculture, Food and Fisheries (2025). Informe anual de la industria alimentaria española (Annual Report on Food Industry in Spain) 2023–2024. Available at: <a href="https://www.mapa.gob.es/dam/mapa/contenido/">https://www.mapa.gob.es/dam/mapa/contenido/</a> alimentacion/temas/industria-agroalimentaria/informacion-economica-sobre-la-industria-agroalimentaria/20250220informeanualindustria2023-20244t24ok web.pdf

Mili, S. (2024). Shifting Business Models for More Sustainable Agri-Food Supply Chains, in: *Agricultural Research Updates* (P. Gorawala and S. Mandhatri, Eds.). New York, Nova Science, pp. 175-197.

OJEU (2022). Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive

2013/34/EU, as regards corporate sustainability reporting. Available at: <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464</a>

Okpoko, C.E., Telukdarie, A., Munsamy, M. (2022). Barriers and enablers impacting the innovation life cycle of food and beverage start-ups: Evaluation within a system dynamics framework. *Procedia Computer Science* 200: 679–688.

Pellegrini, G., Silva de Mattos, C., Otter, V., Hagelaar, G. (2023). Exploring how EU agri-food SMEs approach technology driven business model innovation. *International Food and Agribusiness Management Review* 26 (3): 577-595.

Piedra-Muñoz, L., Galdeano-Gómez, E., and Pérez-Mesa, J.C. (2016). Is Sustainability Compatible with Profitability? An Empirical Analysis on Family Farming Activity. *Sustainability* 8 (9): 893.

Schaltegger, S., Hansen, E.G., Ludeke-Freund, F. (2016). Business models for sustainability: origins, present research, and future avenues. *Organization and Environment* 29 (1): 3-10.

Sippel, S.R., Dolinga, M. (2023). Constructing agri-food for finance: startups, venture capital and food future imaginaries. *Agriculture and Human Values* 40:475–488.

Sippel, S.R., Dolinga, M. (2023). Constructing agri-food for finance: startups, venture capital and food future imaginaries. *Agriculture and Human Values* 40: 475–488.

Ulvenblad, P.O., Ulvenblad, P., Tell, J. (2019). An overview of sustainable business models for innovation in Swedish agri-food production. *Journal of Integrative Environmental Sciences* 16 (1): 1-22.

Zopounidis, C., Lemonakis, C. (2024). The company of the future: Integrating sustainability, growth, and profitability in contemporary business models. *Development and Sustainability in Economics and Finance* 1: 100003.

Zujewski, B. (2022). The Return on Investment (ROI) of Sustainable Business. 2022. Available at: <a href="https://greenbusinessbureau.com/topics/sustainability-benefits-topics/the-return-on-investment-roi-of-sustainable-business/">https://greenbusinessbureau.com/topics/sustainability-benefits-topics/the-return-on-investment-roi-of-sustainable-business/</a>.