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Agrifood system between global and territorial vision – Research article

Farmers' markets as a sustainable model of producers-consumers relationships: evidence from Tuscany

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Abstract. Evidence from the literature emphasize the role of Farmers' Markets (FMs) in enhancing economic benefits for both producers and consumers, improving social outcomes and benefiting the environment. Therefore, FMs can be conceived not just as an alternative to the market, but also as a specific way of shaping producers-consumers relationships, which influences and is at the same time the result of their respective selling-buying models. This article aims at investigating the hypothesis of FMs as a specific and structural form of producers-consumers relationships, and collecting evidence on their perceptions, motivations and behaviour at the markets, and on the impact of selling and purchasing at these FMs on sustainability dimensions. For this purpose, we selected a sample of FMs in the north of Tuscany (Italy) and submitted two in-person semi-structured questionnaires, to both producers and consumers. The methodology was based on actors' self-assessment supported by guiding interviewers. Results showed how producers and consumers participating in FMs, although with differences across FMs types, do not only activate market relationships, but share, learn and build values together. Indeed, FMs are perceived by the actors involved as a structural and alternative framework, giving space and shaping alternative producers-consumers connections.

Keywords: farmers' markets, short food supply chains, alternative food networks, sustainability, proximity economy.
JEL codes: Q12, Q13.

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HIGHLIGHTS

- FMs are widespread in Tuscany, differing in terms of promoters, degree of actors' involvement, governance and functioning.
- In each FM, producers and consumers create their own organisational space, reflecting the characteristics of the products they exchange, their idea of agrifood systems, and the relational model that better suits their values.
- FMs constitute an innovative and alternative economic and social space, structuring producers-consumers relations and shaping their selling and buying models.

1. INTRODUCTION

Over the last few decades, the agri-food system has undergone rapid and deep changes, characterized by a strong trend toward globalization, privatization and vertical coordination (Swinnen and Maertens, 2007; Hendrickson and Heffernan, 2002). These shifts have resulted from various demographics, political, social, technical, economic and cultural factors, culminating in the emergence of an industrialized model of food production and distribution. In this model, large-scale food processing companies and supermarket chains have come to dominate a progressively globalized food system.

Simultaneously, shifts in consumers' behaviours and needs have been driven by societal and economic transformation. The decline of the economic importance of agriculture in rural areas, coupled with urbanization, has led to the geographical separation of agricultural production from consumption centres. This geographical gap needs a complex network of physical (transport, storage, packaging, processing), digital (e-commerce platforms, websites, online stores) and informational connections facilitated by diverse stakeholders. Moreover, income growth, changes in work organisation and shifts in family structure have heightened the demand for additional services in the food purchasing process, reducing consumers direct engagement with farming activities. These changes in the agri-food system have presented an opportunity to make a wide range of food products available globally, thereby enhancing food security and safety, and improving nutritional, technological and sensory attributes of food.

At the same time, the rise of global food chains has raised concerns, notably regarding vulnerability. The industrialized food provisioning model has sparked growing criticisms across multiple dimensions. Economically, smallholders and SMEs face growing challenges in market accessing due to the complexity of adhering to quality standards and the dominance of larger industrial and distribution players, coupled with price compression at the farm gate and increased market price volatility.

The growing geographical, cultural, information divide between production and consumption, along with the negative effects of food system industrialization on equity and fairness, environmental degradation and the loss of social relations, have spurred renewed emphasis on short food supply chains (SFSCs). The increasing interest in SFSCs worldwide, driven by farmers, consumers and citizens, and in some cases, public authorities, underscores the need for alternative food systems that can fulfil some functions overlooked by the industrialized model. SFSCs aim to bridge the gap between food production and consumption, while supporting small producers in achieving viable livelihoods and vibrant rural communities.

Indeed, SFSCs are often characterized as "alternative" (Goodman, DuPuis and Goodman, 2011) or "civic" (Lamine, 2005) supply-chains, or even "nested markets" (Van der Ploeg, Jingzhong and Schneider, 2012). They represent a shift away from industrialized agriculture and food production mainly in developed countries, prioritizing social and environmental sustainability over purely economic considerations. In essence, SFSCs can be conceptualized as an alternative component within the global food system, with a focus on transforming the principle of production and market exchange. Their development spurred a wide theoretical debate over the innovative character of such initiatives – their "alternativeness" – as well as with their "transformative" role. This transformation places emphasis on fairness, solidarity and sustainability.

The recent Covid-19 pandemic has further reinforced the interest in SFSCs. Travel restrictions encouraged the search for alternative food supply methods to reduce physical contacts, while disruption in international trade prompted a re-evaluation of locally produced foods. In this context, SFSCs and local productions have emerged as avenues for innovations, combining social and technological advancements (Belletti and Marescotti, 2020; Nemes *et al.*, 2021; Hobbes, 2021), as well as experimenting new forms of governance and relational connections.

This article aims at investigating Farmers' Markets (FMs) as a special form of producers-consumers relationship which goes beyond the pure economic sphere of market exchange, shaping a new arena where social relationships between producers and consumers can develop, and where actors' participations show different motivations other than economic profitability, to embrace a whole set of economic, social and environmental values (Manser, 2022), such as territorial proximity, community belonging, environmental care, social relationships, learning. In other words, as Smithers *et al.* (2008: 338; cit. in Manser, 2022) put it, FMs are important "as not only a site of exchange, but also as a venue for negotiated meaning in the local food landscape". Analysing a sample of Tuscan FMs belonging to three Italian FMs' networks, this article tries to compare more "institutional" FMs (Coldiretti and Cia) to more "alternative" ones (Genuino Clandestino), to see how through their different governance structures and functioning mechanisms they respond to different objectives, ideas and values that are the expression of the actors involved (producers and consumers). The ultimate goal of this article is

to feed the debate on FMs as alternative and innovative tools, tailored to producers and consumer needs, motivation and expectation, and contributing to the transition towards more sustainable and resilient territorial food systems.

2. THE SUSTAINABILITY OF FARMERS' MARKETS

FMs have been increasingly spreading in Italy since the late 1990s, as a way for farmers and small-medium enterprises to increase their position on the market and their share of value added, bypassing intermediaries, and for consumers to get high quality, fresh and healthy food from local sources. FMs exist under various forms and can be activated and led by a variety of different stakeholders (producers, consumers, municipalities, professionals' organisations). Therefore, FMs can be conceived not just an alternative route to market for producers and consumers to satisfy their respective needs, but they can constitute a specific form of producers-consumers relationship, which influences and is at the same time the result of their respective selling-buying models. In other terms, FMs can represent a model of "proximity economy" (Marotta and Nazzaro, 2023), where producers sell their products to local citizens, and consumers are interested in buying products and services from their own territory, while exchanging and strengthening ties and values that can no longer be found in conventional marketing channels.

The sustainability of FMs is a strongly debated issue in the academic arena (Forssell and Lankoski, 2014; Michel-Villarreal *et al*., 2019; Chiffoleau and Dourian, 2020), especially in comparison with long conventional food chains (Brunori *et al*., 2016; Galli *et al*., 2015), and has gained increasing political attention in view of the beneficial outcomes they are likely to provide for the economy, environment and society as a whole (Vittersø *et al*., 2019).

2.1. The economic dimension

Many studies suggest that FMs can contribute to rural development and economic regeneration. FMs can be new sources of value added to retain locally, stimulating rural economic regeneration and dynamism (Marotta and Nazzaro, 2023). They can create "new economic spaces" enhancing the local attributes such as terroir, traditional knowledge and landrace species, which can translate into higher prices (DuPuis and Goodman, 2005; Van der Ploeg *et al*., 2000; Marsden *et al*., 2002). Shortening the number of links in the supply chain results in a "multiplier effect", that is increased local sales, increased demand for local services and increased labour markets (Otto and Varner, 2005; Henneberry *et al*., 2009). Some studies have also suggested that the presence of FMs attracts shoppers into areas they would otherwise not visit and creates new opportunities for tourism, the revenue from which tends to remain in the local economy, triggering its multiplier effects in the local community (Lev *et al*., 2003).

At individual level, the most reported economic benefit associated with FMs is the increase in producers' incomes. Selling through FMs enables producers, thanks to the elimination of intermediaries (distributors, wholesalers, etc.), to further process and add value themselves to their produce, which in turn allows them to add a price premium on these products and thereby capture a greater share of the profits (Pearson *et al*., 2011; Sage, 2003).

The higher quality and increased freshness of products usually observed in FMs, also increases the economic value for consumers, who can buy food that lasts longer and thus reduce food waste (Marino and Cicatiello, 2012).

2.2. The social dimension

Among the positive effects of SFSCs on the three pillars of sustainability, the social ones are usually the most cited in the literature (Demartini *et al*., 2017). Kneafsey *et al.* (2013) identified three main social areas of impact, namely (1) social interaction, trust and social embeddedness, (2) sense of community, (3) knowledge and behavioural change.

Building relationships of trust is crucial in every experience of FMs. The social dimension is one of the most highlighted aspects by consumers who attend FMs, who often greatly value the atmosphere of their shopping experience. Consumers tend to become loyal customers and to develop confidential relationships with sellers and producers, so that over time, the feeling of trust is no longer referred to the food product itself but to the fact that one can trust the farmer to produce this food in a "safe" way, because the consumer knows the farmer and holds him/her responsible (Hendrickson and Heffernan, 2002; cit. in Kneafsey *et al*., 2013).

Another important dimension influenced by SFSCs is what Kneafsey *et al.* (2013) call "sense of community". FMs have the potential to empower and revitalise local communities, increase work opportunities for young farmers and for people who would be excluded from traditional agriculture (women, pensioners, disabled) and therefore create new employment. They can succeed in keeping rural communities in rural areas and avoid

their desertification and isolation, by creating new forms of relationships between the city and the countryside.

Moreover, SFSCs tend to favour cooperation at all levels and small producers can benefit from working with others (producers, consumers and institutions), since this enables them to reach markets they would otherwise not reach through, for example, shared logistics and delivery operations, shared labelling schemes, shared publicity and promotional campaigns. This can also favour co-operation towards innovation, through the establishment of networks of knowledge exchange, skills training and technical relations among farmers (Mastronardi *et al.*, 2015; Vittersø *et al.*, 2019; Kneafsey *et al.*, 2013; Mancini *et al.*, 2019).

Looking at the more emotional acceptation of the sense of community, SFSCs can contribute to strengthen cultural and regional identities, enhance social cohesion and community building by instilling a sense of pride and belonging to a particular area or social group (Vittersø *et al.*, 2019).

The third social dimension concerns knowledge leading to behavioural change. Consumers attending SFSCs, through social relationships with producers, sellers and other consumers, may learn information on how the food is produced, the methods used and specific organoleptic and territorial attributes, improving their food awareness, culinary education and sustainable food choices. This makes it easier for consumers to evaluate the fairness of prices and understand the true cost and externalities of food production (Malak-Rawlikowska *et al.*, 2019; Vittersø *et al.*, 2019; Mastronardi *et al.*, 2015).

2.3. The environmental dimension

The environmental impact is the more uncertain of the three sustainability pillars. In the literature, the more commonly reported effects that FMs are likely to have on the environment are reduction in food miles and carbon footprint, positive impacts on biodiversity and reduction in the use of agrochemicals on organic farms. Notwithstanding this, quantitative evidence on these effects is quite rare, due to the difficulty in measuring environmental effects and externalities of the different types of SFSCs.

FMs are likely to have a positive impact on agrobiodiversity since, with the necessity to meet consumers' demand for variety, usually met by supermarkets, they feel the need to diversify production instead of specialising in one or two crops, often rediscovering ancient and traditional varieties or introducing organic farming (Bullock, 2000).

In FMs, farmers may also have the tendency to adopt more sustainable practices to reduce negative externalities of agriculture on the environment, such as avoiding the use of pesticides and agrochemicals (typical in organic production), contrasting water pollution and land degradation, protecting natural habitats, reducing packaging of products, contributing to food waste reduction through fresh and high-quality products, paying attention to animal welfare (Marino and Cicatiello, 2012).

FMs, being based on the close relationship between producers and consumers at a local level, may contribute to reduce "food miles", namely the distance food travels to reach consumers, and therefore lower the negative externalities linked to food transportation such as CO_2 emissions and air pollution (DEFRA 2005; cit. in Mastronardi *et al.*, 2015, and in Marino *et al.*, 2013). Nevertheless, on this last point, there is a lack of agreement in the literature since consumers driving to and from the local retail place (market, farm or pick-up point) to buy small quantities of food can be more "carbon intensive" per kilo of product compared to ordinary shopping (Vittersø *et al.*, 2019; Mancini *et al.*, 2019).

3. DATA AND METHODS

Farmers' markets in Tuscany have a long historical tradition, dating back to the early 1970s and originating from farmers' search for alternative ways to the dominant development model of the industrial agrifood system. In recent years, FMs have begun to attract the growing interest of consumers, but also of public actors, in particular regional and local administrations, who started to perceive their value in local development processes and to take direct action for their promotion (Brunori *et al.*, 2009). Nowadays, FMs are still very widespread in the region, varying in terms of types of promoters (professional producers' organisations, consumers' associations, public institutions, small farmers' networks), degree of actors' involvement, governance and functioning.

This article aims to investigate Farmers' Markets (FMs) as a new arena for social relationships between producers and consumers, where actors show different motivations other than economic profitability that embrace a whole set of economic, social and environmental values.

For the purpose of this study, we selected a sample of 9 farmers markets on the Florence-Prato-Pistoia plain (in the north of Tuscany, Italy, see Figure 1) belonging to three different networks: Coldiretti, Cia and Genuino Clandestino. Coldiretti (*Confederazione Nazionale Coltivatori Diretti*) and Cia (*Confederazione Italiana Agricoltori*) are the two main Italian farmers' unions, both

Figure 1. Location of the case study area: Florence-Prato-Pistoia plain, Tuscany, central Italy.

organising and managing a network of farmers' markets, respectively *Campagna Amica* FMs and *La Spesa in Campagna* FMs. Genuino Clandestino, instead, is a local association gathering small farmers campaigning for food sovereignty. While the two farmers' unions are very institutionalised organisations, the last one is a bottom-up network of farmers, with a quite strong political connotation and a militant approach to themes such as food self-determination and food sovereignty. In our sample we selected 2 Cia FMs, 5 Coldiretti FMs and 2 Genuino Clandestino FMs (Table 1). All these FMs are recent markets, created in the last 10-15 years by independent farmers' groups (Genuino Clandestino) or according to nation-wide initiatives of the two farmers' unions (Coldiretti and Cia). In these FMs, depending on the regulations of each single market, producers mostly sell their own products, or those produced by other members of these networks. Most of the producers participating in these FMs are local or regional producers, with a few exceptions for those selling very specific or traditional products from other Italian regions.

For each selected market, we conducted some in-person interviews, submitting two different questionnaires to a sample of 34 producers and 181 consumers, with the aim of collecting evidence on their perceptions, motivations and behaviour in the markets, and on the impact of selling/purchasing in these farmers markets on sustainability dimensions. The two samples were almost equally distributed among the 9 markets, with 3-4 producers and 20 consumers interviewed for each one. Interviews were conducted in April and May 2023.

The producers' sample contains mostly small family businesses located in Tuscany, around the provinces of Florence, Prato, Pistoia and Lucca, with some exceptions of non-Tuscan producers selling particular kind of products such as Parmigiano Reggiano from Emilia-Romagna (central Italy) and citrus fruit from Basilicata (southern Italy). For the majority, producers sell fruit and vegetables, cheese and milk derivatives, meat and cold cuts, and olive oil, which is a very typical and widespread product in Tuscany, largely used in the culinary tradition.

Consumers in the sample are 61% females (111 individuals) and 39% males (70 individuals), with an average age of 56 years old (min. 19, max. 90) and an average family size of 2.73 components.

The methodology employed is based on actors' self-assessment supported by a guiding interviewer. The questionnaire submitted to producers is divided into two main sections. The first section contains open-ended questions collecting descriptive information on the characteristics of respondents' businesses and their participation in the specific FM (e.g., organisational arrange-

Table 1. Structure of the sample in relation to the market characteristics.

Market	City	Network	N° producers	N° consumers
Piazza Alberti	Florence (FI)	CIA	4	20
Parterre	Florence (FI)	CIA	3	20
Novoli	Florence (FI)	COLDIRETTI	3	20
Cascine	Florence (FI)	COLDIRETTI	4	20
Osmannoro	Sesto Fiorentino (FI)	COLDIRETTI	4	20
Sacra Famiglia	Prato (PO)	COLDIRETTI	4	21
Via dell'Annona	Pistoia (PT)	COLDIRETTI	5	20
Piazza Tasso	Florence (FI)	Genuino Clandestino	4	20
Le Fornaci	Pistoia (PT)	Genuino Clandestino	3	20
Total			34	181

ments, resources needed, motivations and expectations, difficulties and future needs). The second section contains two sets of structured questions, the first set asking producers to evaluate (on a 5-point Likert scale, from "not important" to "very important") the importance of a list of seven criteria (income increase, income security and stability, fairness and social justice, supporting the local community, consumers' satisfaction, reduction of negative environmental externalities, preservation of local resources) in the decision-making process of their business, and the second set asking them to assess (on a 5-point Likert scale, from "very negative" to "very positive") the impact of the specific FM on a list of 33 economic (EC), social (S) and environmental (EN) aspects (Table 2).

The questionnaire submitted to consumers contains closed-ended questions dealing, in the first part, with the general characteristics of consumers' participation in the specific market (e.g., frequency of attendance, types of products purchased, average expenditure). The second part of the questionnaire contains some questions asking consumers to express (on a 3-points Likert scale) their agreement with the perceived impact of the FM on a list of consumption attributes grouped into 3 categories (consumption experience and prices (CE), quality and health (QH), localness and the environment (LE)) and with the factors perceived as limiting (LM) the access and frequency of purchases at FMs (Table 3).

4. RESULTS

Results show that both the producers and consumers interviewed use farmers' markets in a stable and continuous way, as their main commercial outlet. 76% of the producers in the sample also participate in other FMs than the one in which they were interviewed, and 79% of them consider FMs as "very important" in relation to their economic turnover (Figure 2). Moreover, the majority of producers offer a quite wide supply products at the FM (Figure 3), with 56% of producers selling 3 or more categories of products, 26% of them 4 or more categories, and 15% 5 or more categories.

Looking at consumers (Figure 4), 71% of the sample frequently buy products at the FM where they were interviewed (50% of them weekly and 21% a few times a month), while 42% also frequently buy products from other FMs. Moreover, the majority of consumers buy a quite varied basket of products at the FM (Figure 3), with 80% of consumers buying 3 or more categories of products, 56% of them 4 or more categories, and 35% 5 or more, suggesting a use of FMs for the usual food shopping.

Producers in the sample on average evaluated social and environmental criteria ("support local community", "consumers' satisfaction", "reduction of negative environmental externalities" and "preservation of local resources") as significantly more important in their productive and marketing decisions than economic criteria ("income increase" and "income security and stability"). However, some differences emerged across different FMs networks (Figure 5). Most of the producers from Genuino Clandestino (91%) consider social and environmental decision-making criteria very important and only 28% of them attribute importance to economic ones. Instead, in Cia and especially Coldiretti markets, even if most of the producers attribute a significant importance to social and environmental criteria, they still also consider economic criteria very important (50% of producers in Cia and 90% in Coldiretti).

Concerning sustainability, producers on average evaluated the impacts of FMs as positive on all the items analysed in the three sustainability dimensions but, however, environmental and social aspects are perceived as

Table 2. Decision-making criteria and FMs' impacts from the producers' questionnaire.

Economic impacts (EC)
EC1) Price level
EC2) Income level
EC3) Sales predictability
EC4) Access to market
EC5) Power & autonomy
EC6) Products & income diversification
EC7) Unfit products
EC8) Favourable payment terms
EC9) Risk sharing
EC10) Resource sharing
EC11) Distributive equity
EC12) Local economy growth
EC13) Consumers' satisfaction
EC14) Economic resilience to external shocks
Social impacts (S)
S1) Trust & relationships
S2) Producers' cooperation
S3) Local jobs
S4) Marginalised workers
S5) Producers' wellbeing
S6) Female empowerment
S7) Community empowerment
S8) Local identity & knowledge preservation
S9) Consumers' food awareness
S10) Affordability for consumers
S11) Job resilience to external shocks
Environmental impacts (EN)
EN1) Transport pollution
EN2) Packaging pollution
EN3) Food waste
EN4) Pesticides
EN5) Agrobiodiversity preservation
EN6) Animal welfare
EN7) Resources regeneration
EN8) Environmental awareness

Source: authors' elaboration. Questionnaire adapted from the COACH project methodology.

Table 3. Consumption attributes among consumers at FMs.

Consumption experience and prices (CE)
CE1) It saves me money
CE2) It saves me time
CE3) It allows me to shop more pleasantly
CE4) I find a wider and more diverse selection of products than in the supermarket
CE5) After the COVID pandemic I increased my purchases at the farmers' market
Quality and health (QH)
QH1) It makes it easier for me to buy typical and traditional products
QH2) It makes it easier for me to buy seasonal fruit and vegetables
QH3) I find fresher and better-quality produce
QH4) It contributes to a more varied and healthier diet
Localness and environment (LE)
LE1) It makes it easier for me to buy local products
LE2) It allows me to reduce food waste
LE3) It allows me to reduce pollution due to transport
LE4) It allows me to reduce packaging waste
LE5) It contributes to supporting local producers
Limiting factors (LM)
LM1) Too much time is needed
LM2) I cannot find all products when I need them
LM3) Purchasing is too complicated (management, logistics)
LM4) Products are too expensive
LM5) Little variety of products available

more positively influenced by FMs than economic ones. Looking across the three different networks of FMs, some interesting differences emerge (Figure 6). Genuino Clandestino producers are the most critical producers, especially towards the impact on purely economic aspects (EC1-EC5, EC8, EC11), while they perceive a positive impact of the FM on economic resilience (EC14), thanks to the possibility of coping with different market risks though diversification (EC6), sale of products unfit (EC7) for modern markets (small defects, imperfect shape/size) risk and resources sharing mechanisms (EC9, EC10). Producers of this network also perceived the social impacts of the FM as very positive, especially on dimensions linked to trust, cooperation, job creation and resilience, producers' wellbeing and community empowerment (S1-S4, S7, S11), while they are less convinced of the effects on consumers' awareness, and food identity preservation (S8, S9, S10), and of the capacity of FMs to counteract negative environmental externalities of agri-food production (EN1-EN8). Producers from Cia and Coldiretti, instead, tend to be more in line with each other in the whole spectrum of sustainability aspects, even if Cia producers clearly show a more positive perception of the environmental impacts of FMs.

To test the hypothesis of FMs as a structural marketing and relational strategy for producers, alternative to conventional distribution channels, going beyond the mere economic profitability and embracing also a set of other economic, social and environmental values (Manser, 2022), we selected four of the impact variables as "proxy" for stability and intensity of producers' rela-

Figure 2. Importance of FMs in relation to producers' economic turnover.

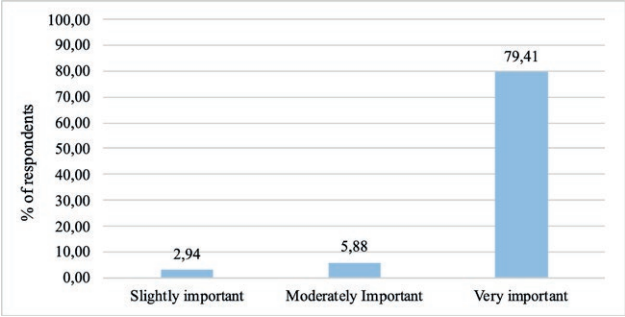


Figure 3. Producers supply of and consumers' demand for products at FMs.

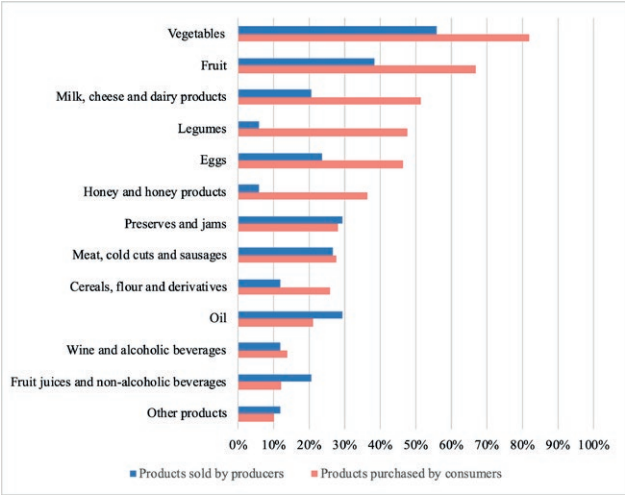


Figure 4. Consumers' frequency of purchase at FMs.

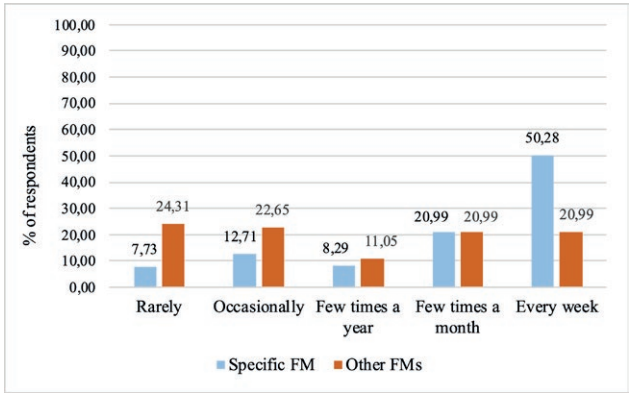
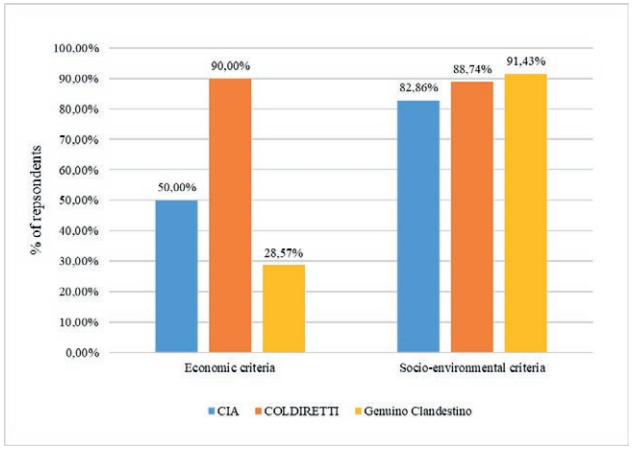
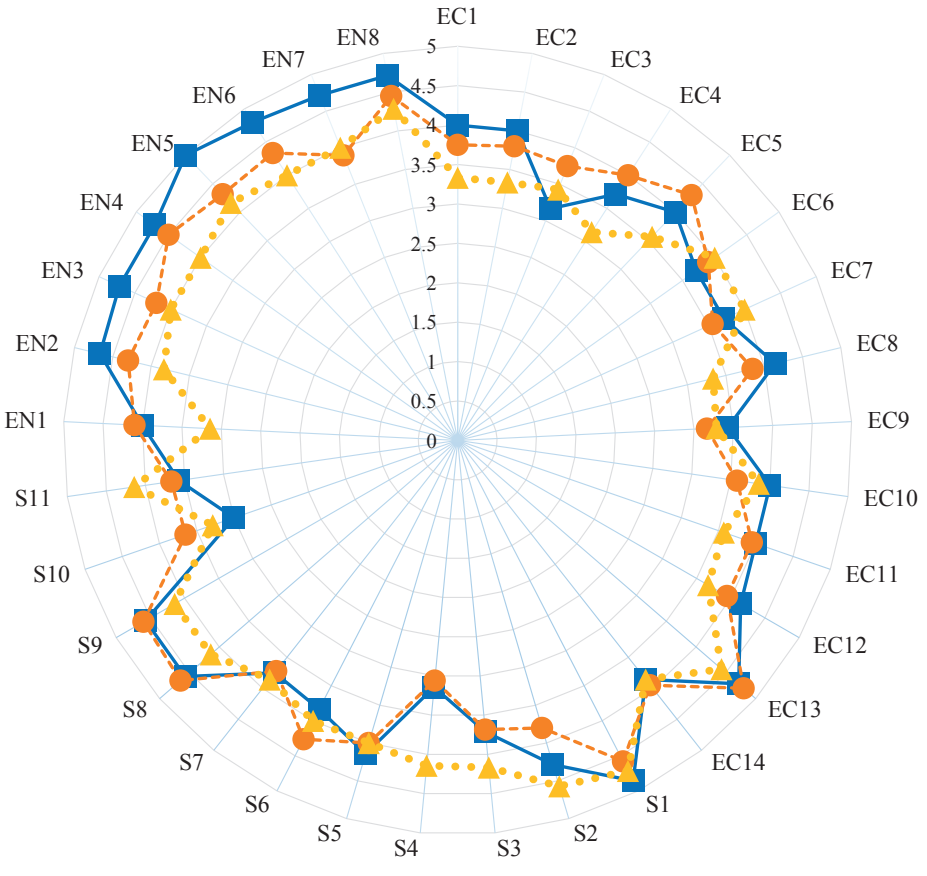


Figure 5. Importance of economic and socio-environmental criteria in producers' decision-making processes.



tionship with the FM and its other actors (other producers and consumers). The four proxy variables concern economic aspects like risk-sharing (EC9) and resource-sharing (EC10) with other actors, and social aspects such as the building of social and trust relationships between different actors (S1) and cooperation dynamics between producers (S2). Results (Figure 7) show how the two social proxy variables (S1 and S2) are perceived as very much positively influenced by FMs, coherently with what can be found in the literature (Mastronardi *et al.*, 2015; Vittersø *et al.*, 2019; Kneafsey *et al.*, 2013; Mancini *et al.*, 2019). Indeed, 79% of the sample producers consider the impact of FMs as positive on cooperation between producers (S2) and 97% of them consider the impact of FMs as positive on trust and social relations between producers and consumers (S1), with no "non positive" answers. For the economic proxy variable EC10 – i.e., the possibility of sharing resources with other producers, consumers or other actors – the perceived effect of FMs is significantly positive, with 64% of the sample producers declaring a positive impact. Instead, for the other economic proxy variable EC9 – concerning the possibility to share risk with other producers, consumers or other actors – the majority of actors (59%) perceived a non-positive impact of FMs, while 35% of them perceived it as positive. In reality, looking deeper into the non-positive answers, only 15% of the producers expressed a negative impact of FMs on risk-sharing, while 44% of them perceived that impact as neutral ("neither positive nor negative"), which could be indicative of the fact that collective risk-coping mechanisms are not put in place by the interviewed producers, or that they are implemented outside the markets, regardless of producers' participation in FMs. No significative differences across FMs networks were found for these four proxy variables, suggesting that the degree of intensity and stability of relations between

Figure 6. Sustainability impacts of FMs. Average of producers' answers on a 1-5 Likert scale by FM network ("very negative" to "very positive").

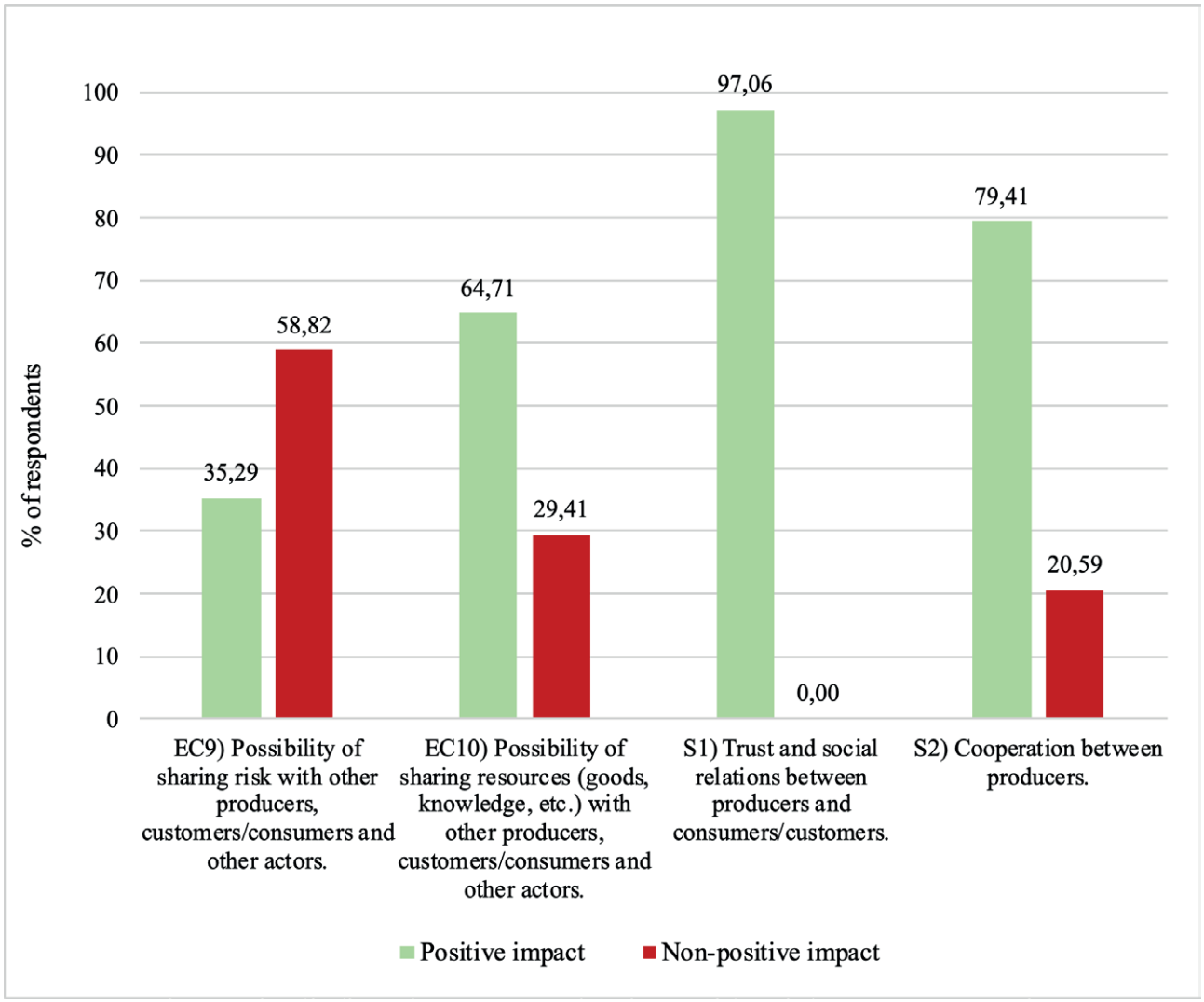


Economic Impacts	Social Impacts	Environmental Impacts
EC1) Price level	S1) Trust & relationships	EN1) Transport pollution
EC2) Income level	S2) Producers' cooperation	EN2) Packaging pollution
EC3) Sales predictability	S3) Local jobs	EN3) Food waste
EC4) Access to market	S4) Marginalised workers	EN4) Pesticides
EC5) Power & autonomy	S5) Producers' wellbeing	EN5) Agrobiodiversity preservation
EC6) Products & income diversification	S6) Female empowerment	EN6) Animal welfare
EC7) Unfit products	S7) Community empowerment	EN7) Resources regeneration
EC8) Favourable payment terms	S8) Local identity & knowledge preservation	EN8) Environmental awareness
EC9) Risk sharing	S9) Consumers' food awareness	
EC10) Resource sharing	S10) Affordability for consumers	
EC11) Distributive equity	S11) Job resilience to external shocks	
EC12) Local economy growth		
EC13) Consumers' satisfaction		
EC14) Economic resilience to external shocks		

producers and other actors in FMs (other producers and consumers) is not influenced by the FM type, unlike their content, objectives and motivations which vary across FMs, as discussed above.

Consumers in the sample on average consider FMs as positively impacting on their consumption behaviour, diet, and on the territory and the environment, compared to conventional distribution channels (Figure 8), as highlighted in the literature on this topic (Marino and Cicatiello, 2012; Malak-Rawlikowska *et al.*, 2019; Vittersø *et al.*, 2019; Mastronardi *et al.*, 2015). Notwithstanding this, on more economic aspects such as saving money/time or finding a wide selection of products (BH1, BH2, BH4) only 25-30% of them agree, which probably shows the awareness of FMs often being more time-money consuming than conventional channels, especially to complete the full weekly shopping. As happened for producers, it is interesting again

Figure 7. Producers' perception of the impact of FMs on variables EC9, EC10, S1 and S2.

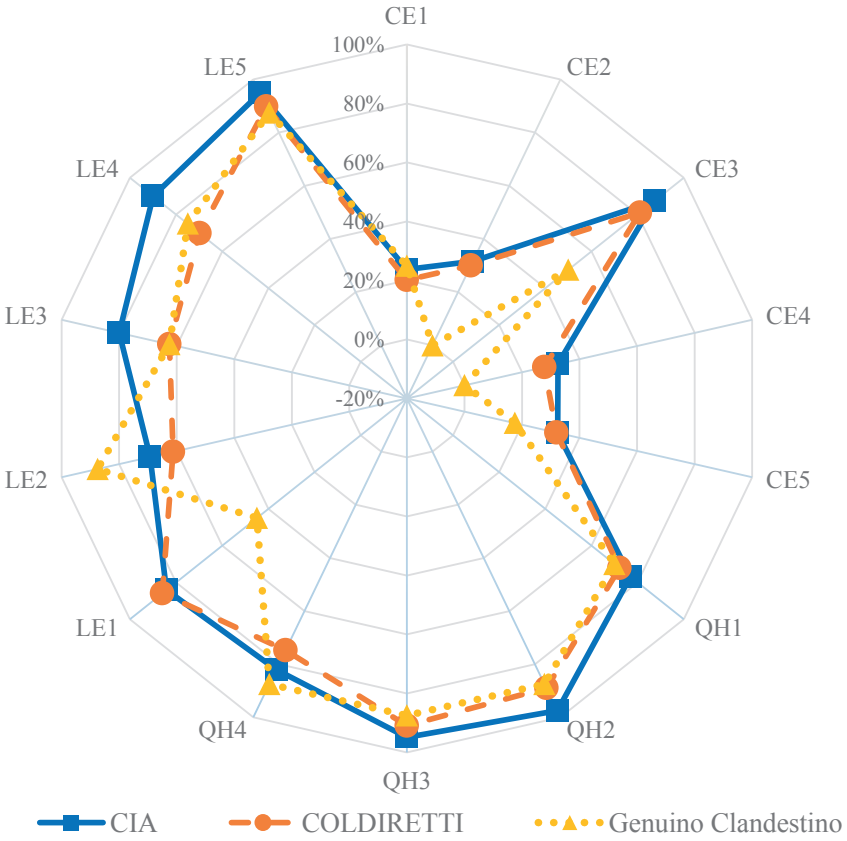


The graph represents positive VS non-positive perceived impact (by producers), with positive including "very positive" and "positive" response options and "non-positive" including "neither positive nor negative", "negative" and "very negative" response options.

to note the differences in perceptions of Genuino Clandestino consumers. Indeed, their perception of economic aspects (CE1, CE2, CE4) is even worse than that of the rest of the sample, while most of them are quite sceptical about the pleasantness of the shopping experience (CE3) and do not agree on the facility to buy local products (LE1). Instead, they are quite in line with the rest of the sample in appreciating the impact of FMs on their diet improvement (QH1-QH4), supporting local producers (LE5) and reducing negative environmental effects (LE2-LE4).

Concerning factors that can limit consumers' access and hinder more frequent purchases at FMs (Figure 9), the most agreed were the variability of the supply over time (LM2) and the cost of products (LM4), but also the limited variety of products (LM5) and the extra time needed to shop at FMs (LM1) were mentioned by a significant number of respondents. Genuino Clandestino consumers perceived as highly limiting the time needed to shop (LM1) at FMs and the variability of the supply (LM2), while Cia consumers stressed more as hindering factors the limited variety of products (LM5) and their cost (LM4).

Figure 8. Consumers' perception on the impact of FMs on consumption behaviour, diet, territory and environment (% of respondents agreeing with each item).



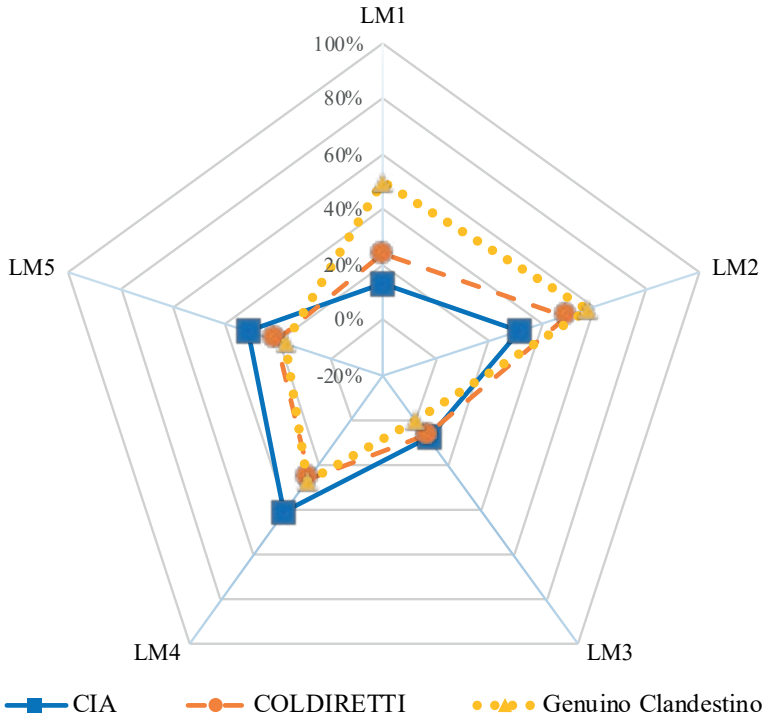
Consumption experience and prices (CE)	Quality and health (QH)	Localness and environment (LE)
CE1) It saves me money	QH1) It makes it easier for me to buy typical and traditional products	LE1) It makes it easier for me to buy local products
CE2) It saves me time	QH2) It makes it easier for me to buy seasonal fruit and vegetables	LE2) It allows me to reduce food waste
CE3) It allows me to shop more pleasantly	QH3) I find fresher and better quality produce	LE3) It allows me to reduce pollution due to transport
CE4) I find a wider and more diverse selection of products than in the supermarket	QH4) It contributes to a more varied and healthier diet	LE4) It allows me to reduce packaging waste
CE5) After the COVID pandemic I increased my purchases at the farmers' market		LE5) It contributes to supporting local producers

5. DISCUSSION

Results from the analysis show that, for most of the actors involved, FMs appear to be a specific and structural choice that reflects producers and consumers' expectations and motivations, giving a particular imprinting to their respective selling and buying models, to the extent that they constitute a specific way of shaping their mutual relationships.

FMs are not just a sporadic choice, but a structured and continuous way of intending producers-consumers economic and social relations. On one side, they reflect a specific approach to food and agriculture, and they better suit the products, values and messages these actors bring with them and are interesting to sell, buy, convey and share with each other (Alkon, 2008). On the other side, FMs themselves influence and shape producers and consumers' selling and buying habits and behaviours, and their mutual relationships. The continuity and stability of these relations is confirmed by the results, which show how the majority of producers consider FMs as an extremely important market outlet in relation to their

Figure 9. Consumers' perception of factors limiting access and more frequent purchases at FMs (% of respondents agreeing with each item).



LM1) Too much time is needed	LM2) I cannot find all products when I need them	LM3) Purchasing is too complicated (management, logistics)	LM4) Products are too expensive	LM5) Little variety of products available

economic turnover, and they usually participate in several of them. Consumers too opt for FMs as a stable shopping modality, buying their products there weekly or very frequently and often attending more than one FM.

FMs are not a secondary or residual marketing channel, but a significant and important marketing and shopping modality. Indeed, most of the producers in the sample offer a quite diversified set of products, as well as the great majority of consumers buy a significantly varied basket of products (at least more than 3 categories of products), suggesting from both sides an intensive use of FMs for an important share of the usual marketing and shopping. Regarding producers, the variety of products sold also highlights how FMs, and more in general SFSCs, influence the farm's structure and strategy: indeed, as reported also by Lancaster and Torres (2019), conversely to conventional distribution channels, FMs tend to promote products diversification, which is often essential to better meet consumers' varied demand and achieve economic viability.

FMs are not just a marketing or purchasing choice to respond to producers and consumers' economic needs for selling and buying food by obtaining better remuneration and pursuing value for money. Even though the economic component surely still plays an important role behind producers and consumers' market choices, it is often not the primary engine of their involvement in FMs. Producers in the sample, besides economic motivations, attribute great importance to social and environmental criteria when making decisions on their business, such as supporting the local community and preserving the environment and local resources (Kneafsey *et al.*, 2013). Moreover, when it comes to the perceived impacts (Figure 4), they acknowledge that FMs have a significant influence in shaping relations between producers and consumers, as shown by their answers to the four relational stability-intensity "proxy" variables (EC9, EC10, S1, S2). Indeed, FMs tend to foster the development of both economic relations leading to share resources, knowledge (EC10) and market risks (EC9), and social relations based on trust (S1) and cooperation (S2). This intensifies the flow of information and exchanges between the two sides, which on the one hand positively affects producers' work-related wellbeing (S5) and con-

sumers' satisfaction about FMs (EC13), and on the other increases consumers' awareness about food products and production processes (S9), resulting in an enhanced capacity of FMs to preserve and valorise local food products and the related knowledge, culture and identity (S8). Consumers' perceptions confirm that FMs, through the intensification of producers-consumers relationships, enhance the flow of information between the two sides, making their shopping experience more pleasant (BH3) and easing the purchase of products which are not only seasonal, fresh and of good quality (DT2, DT3), but also typical, traditional (DT1) and local (TE1).

In this general framework coming out from the analysis, some interesting differences emerge between the more "institutional" and business-oriented FMs organised by the Coldiretti and Cia, and the more "alternative" and solidarity-oriented ones of the Genuino Clandestino network. In general, the actors from this network are more critical and severe in their opinions, especially towards more economic aspects to which they attribute far less importance than to social and environmental ones, and which they consider as less impacted by FMs. Indeed, producers and consumers from this network tend to share a quite strong "activist" and political attitude towards agriculture and food, being very close to ideas of self-sufficiency and food sovereignty, and therefore radically opposed to conventional agrifood production and distribution (Alkon, 2008). This often takes their opinions to extremes reflected in their answers, also because of their specific view of how relationships in agrifood systems should be shaped and function. Moreover, solidarity mechanisms in the network are quite strong, and exchanges and cooperation are very frequent, enhanced also by the informal participatory guarantee system (PGS) they put in place among producers, with frequent farm visits coupled to collective moments of work, resources (e.g., seeds) and knowledge sharing. This is reflected in their agreement on the positive impact of FMs on risk and resources sharing (EC9, EC10), and especially in their much higher perception of the positive influence on producers' cooperation and job resilience (S2-S4, S11), as the intensity of relations and solidarity within the network helps the member to cope with market risks and eventual external shocks.

These differences in actors' perceptions and attitudes toward FMs show how FMs are not all the same (Marino and Cicatiello, 2012). Besides some general characteristics and patterns, in each market producers and consumers create their own organisational space, which reflects the characteristics of the products they exchange, their idea and understanding of agriculture and agrifood systems, and the relational model that better suits the messages and values they want to bring about.

From all these evidences and considerations, the comparison between producers and consumers' results highlights a common pattern in their behaviour and perceptions in relation to FMs that seems to confirm our initial hypothesis. FMs are not just one of many ways of buying and selling food products that producers and consumers have at their disposal, but they emerge as a stable and critical alternative marketing and shopping choice, generating specific relational models between the actors involved which at the same time reflect, influence and enable the expression and practice of a given approach to food and agriculture.

6. CONCLUSIONS

The growth of FMs, together with the more general wave of emerging SFSCs, witnesses the desire of searching for alternatives to the conventional agri-food system. Indeed, in spite of the fact that the reality of SFSCs shows different types of initiatives and 'souls' of the movement, more or less aimed at a radical transformation of the conventional agri-food system, it is possible to read a general tendency towards overcoming the logic of the pure neo-classical market.

The results of this survey, although only exploratory in nature, show how both producers and consumers participating in FMs in Tuscany, although with differences across FMs types, do not only activate market relationships, but share, learn and build values together. The great importance attributed by the interviewed consumers to social and environmental criteria when making their decisions about which marketing channel to choose and which producer to buy from, and the lower importance attributed by producers to economic variables such as price premium, is a clear signal of the diversity of FMs. Indeed, as previous studies showed (Marino *et al.*, 2013; Vittersø, 2019), values such as FMs local identity, community building, knowledge and information exchange, trust, solidarity to local people, co-operation, eco-friendliness, waste reduction, often appear to be more important than economic advantages for both producers and consumers.

Therefore, FMs constitute an innovative and alternative economic and social space, structuring producers-consumers relations, as well as their relations with the market space itself and the products' exchange dynamics. If, on the one hand, they reflect a specific approach to food and agriculture and offer an appropriate space to channel and convey products, values and messages rep-

resenting this approach, on the other, FMs themselves influence and shape producers and consumers' selling and buying models, and their mutual relationship. This bidirectional and circular influence between the FM and its community of producers and consumers clearly emerged in the results of this article, in the way different types of FMs are created and structured to respond to the different objectives, ideas and values of their members, influencing and shaping them at the same time.

The approach followed in this article presents some limitations. The sample of both producers and consumers could have been bigger and include more FMs showing a more varied set of organisational models, to better appreciate the differences between them. Moreover, the methodological choice of designing the producers' survey as an actors' self-assessment, even though guided by an interviewer, may have slightly altered the robustness of results due to possible misunderstandings in the meaning of some questions and/or terminology.

Nevertheless, with this article we hope to feed the debate and contribute to the understanding of FMs as an alternative innovative tool supporting the development of more sustainable and resilient territorial food systems.

Future research on the governance mechanisms of the various types of FMs could help to understand the implications of different organisational models on the sustainability of FMs and their appropriateness according to actors' business structure and type, as well as in relation to their values and expectations. Interesting evidence could emerge from a comparison of the thematic dimension, between FMs with different degrees of "alternativeness" in their content or governance structure, of the spatial dimension, between FMs of different areas and regions of Italy, and of the time dimension, between "historical" and more recent FMs.

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AUTHOR CONTRIBUTIONS

M.M.: Conceptualization, Methodology, Validation, Formal analysis, Investigation, Data curation, Writing – original draft, Writing – review & editing; A.M.: Conceptualization, Methodology, Validation, Formal analysis, Investigation, Writing – original draft, Writing – review & editing; G.B.: Conceptualization, Methodology, Validation, Formal analysis, Investigation, Writing – original draft, Writing – review & editing.

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