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Agriculture and sustainability of the welfare: the role of the short supply chain

Manfredi De Fazio*

“Grant Holder in Agrarian Economy – Project New Orto Chain”

Abstract

The lengthening of the supply chain developed over the last decades – due to the multiplication of intermediaries - has produced effects from an environmental, economic, social and territorial point of view cannot pass unnoticed. As a matter of fact, the excessive amount of participants taking part in all the phases of the supply chain has created the basis for an increase of environmental impacts due to many factors: the implementation of farming methods, which are getting more and more intensive, put pressure on the environment, on the sustainability of the agricultural industrial production process and increase the number of kilometres the goods have to travel in order to be distributed.

Moreover, the extension of the supply chain has produced a decrease of its share of value-added to the benefit of the farmers and, as a consequence, has excluded many small producers from the market and caused a negative impact on rural areas (unemployment, depopulation due to migration). From the customers’ point of view, the increase of intermediaries has created an informative asymmetry due to the impossibility to track their shipment as well as to a lowering of their quality standards, caused by an increasingly standardized production process.

During the last years, the interest of policy-makers in short supply chain has grown. It appears to be a tool able to incentivize a sustainable agricultural productions and to provide environmental, economic and social benefits. In fact, the short supply chain other than reducing costs, which are cut down by decreasing the number of intermediaries that take the product from the producer to the consumer, creates a positive environmental externalities and, above all, promotes the local areas.

This work highlights the central role taken on by the implementation of new forms of marketing in the short supply chain and its importance in influencing the concept of sustainable development in the agricultural supply chain.

Moreover, this work aims to find evidence-based guidelines for policy-makers seeking to support the development of these new forms of marketing, whose potential lies in the customers’ attention to ethical and environmental issues and their need for natural and healthy food.

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* Manfredi De Fazio. Tel.: +393384544428;.
E-mail address: manfredi.defazio@libero.it

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1. Introduction

The lengthening of the supply chain seen in the last decades - through the multiplication of intermediaries - has produced effects from an environmental, economic, social and territorial point of view that cannot pass unnoticed. As a matter of fact, the excessive amount of participants taking part in all the phases of the supply chain has created the basis for an increase of environmental impacts due to many factors: The implementation of farming methods, which are getting more and more intensive, put pressure on the environment, on the sustainability of the agricultural industrial production process and increase the number of kilometres the goods have to travel in order to be distributed. Moreover, the extension of the supply chain has produced a decrease of its share of added value to the benefit of the farmers and, as a consequence, has excluded many small producers from the market and caused a negative impact on rural areas (unemployment, depopulation due to migration).

From the customers' point of view, the increase of intermediaries has created an informative asymmetry due to the impossibility to track their shipment as well as to a lowering of their quality standards, caused by an increasingly standardized production process. Furthermore, the long supply chain has considerably reduced the local production, impoverishing the agricultural biodiversity.

Starting from the 1990s, there has been an evolution of taste on the customers' behalf, who have started asking for natural, healthy and high-quality food products. The evolution of the market demand has led to economic opportunities for farms that, by working through short supply trade channels, have had the possibility to retrieve both their entrepreneurial functions and of a part of their share of added value of their agricultural production. In this scenario, the first short supply chains ventures started to develop, by decreasing or removing the number of intermediaries between the producer and the consumer.

During the years, various short supply chain enterprises have developed and have taken on various characteristics and organizational forms, that vary from the simpler direct trade with the farmers' markets, to box schemes, to ethical purchasing groups and so on.

It is interesting to highlight how the interest has grown on behalf of policy makers towards short-food supply chains. Short supply chains seem to be a tool able to incentivise the sustainability of agricultural productions and to generate an environmental, economic and social benefits on the local area. As a matter of fact, the shortening of the supply chain, beyond reducing costs by cutting down the number of intermediaries existing between the producer and the consumer – which is beneficial both for the producer and the consumer – it also creates positive externalities on the environment and, in particular, it contributes to the enhancement of the regional and local identity.

2. Short supply chains and the Rural Development Policy 2014-2020

The new common agricultural policy (CAP) 2014-2020 and especially the measures adopted concerning the rural development, “Sviluppo Rurale”, specific interventions aimed at promoting a more competitive and balanced supply chain have been organized. In fact, the need to support both the producers' organizations and direct trading, which would strengthen the farmers' situation, is highlighted. It is for this reason that one of the goals of the new PAC is to “*promote the organization of the food supply chain and the management of the risks of the agricultural sector, with particular attention towards: a better integration of the primary producers in the food supply chain in accordance with quality assurance schemes, the promotion of the products in the local markets, the short supply chain, the producers' associations and the inter-professional organizations*”. It is evident that a special attention is given to the producers who are part of the agricultural supply chain and that short supply trade channels are considered a means that needs to be supported in order to allow these producers a better integration in the supply chain.

If until now the interventions on the short supply chain had been activated using measures addressed towards the development of rural areas, the new CAP organises measures that directly support the short supply chain. As a matter of fact, with the proposal of the new PAC, the EU gives a definition of the short supply chain for the first

time: “supply chain formed by a limited number of economic operators who focus on the promotion of the cooperation, the regional development and the tight social and territorial relationships between producers and consumers”.

Furthermore, with the new PAC 2014-2020 “the support to short supply chains ceases to be a simple means supporting a marginal and non competitive kind of agriculture and becomes an important tool for achieving general goals concerning the rural development and the maintenance of the vitality of the rural areas” (Brurori G. e Bartolini F. 2013).

The new Common Agricultural Policy establishes economic, environmental and territorial objectives and it seems that the development of forms of trade related to the short supply chain are able to contribute positively towards them. In fact, beyond creating economic benefits for the producers, the development of the short chain creates positive important externalities on the environment (decrease of the km the goods have to travel, increase of the agricultural biodiversity, environmentally sustainable agricultural procedures) and especially on the land where they develop (enhancement of the local production, employability increase in the primary sector).

In Italy, the measures concerning rural development are activated by the regions through the “Rural Development Programmes” (RDPs). In this work I have analysed the RDPs 2014-2020 of the Campania region, the Basilicata region and the Sicilia region. I have investigated the role played by the short supply chain in these programmes, since it represents without any doubt a means able to promote a sustainable agricultural model. The reason why I have chosen to analyse the regions above mentioned stems from the fact that these areas have been characterized by a historical agricultural vocation and have experienced delays in the economic development if compared to the other Italian regions.

3. Short supply chains in the Campania RDPs 2014-2020

The Campania Region gives prominence to the development of these new forms of trade. In fact, the RDPs highlights how the agricultural factories that work within the short supply chain and in the direct marketing are one of the main points of strength of the agricultural sector of the Campania region. In fact, the short supply chain and direct trade are phenomena undergoing a strong growth in these last years, towards which entrepreneurial decisions have been oriented. In the Campania region there is a lack of monocultures or of a high agricultural specialization, rather there is a wide and diversified range of agricultural products composed of small local productions and typical high-quality productions. If this phenomenon has been understood as a weak point for years, now the wide range of local and typical products can work towards the advantage of these producers. The short supply chain of commercialization can be an optimal means through which both the small local productions and the resulting development of the rural areas can be enhanced. It is for this reason that the RDPs highlights that they should make the most of the short supply chain. In fact, more and more consumers prefer to purchase local, natural and high-quality products. As it is easily deducible, the short supply chain and direct trading could represent an efficient response to the fulfilment of these needs.

One of the points of weakness of the agricultural sector of this region is that the value-added chain has moved towards the valley. This is due to the limited dimensions of the factories and to the difficulty of developing stable forms of collective supply, which put the single factories in a position of weakness, compared to the valley operators of the supply chain who, this way, take a high share of the added-value of the products. In light of this evidence, in the “Rural Development Programmes 2014-2020” of the Campania region identifies the need to give support to the organization of the short supply chains. In fact, it has been emphasised that the development of the high-quality short supply chain has to allow a repositioning of the value-added chain upstream, with the objective of increasing the bargaining power of the agricultural factories that have been strongly penalised by the traditional supply chain in the past decade.

The development the short supply trade channels could positively affect other necessities of the primary sector of this region, such as increasing the income and the employability by supporting the diversification of the agricultural enterprises. As a matter of fact, the high youth unemployment is one of the principal causes of the demographic downturn of the rural areas and the development of small agricultural factories could contribute to contrast this phenomenon. In fact, the short supply chain could support the creation and the survival of these small agricultural factories strongly oriented towards a high-quality local production, contributing to a balanced and sustainable

development of the rural areas. Furthermore, the PSR highlights the need to promote a better organization of the supply chain, which would lead to a better efficiency and to a closeness to the consumer. The short supply chain surely represents an example of efficient supply chain close to the consumer. It is interesting to notice how the implementation of the short supply chain can contribute to the achievement of various objectives of policies concerning the rural development.

4. Short supply chains in the Basilicata RDPs 2014-2020

Analysing the RDPs 2014-2020 of the Basilicata region, it immediately appears that one of the main strengths of the agricultural system is represented by the local markets selling high-quality products (campagna amica, botteghe, presidi slow food) and by the short supply chain. However, direct trading in fruit and vegetables factories isn't widely developed. In fact, fruit and vegetables are mainly sold to intermediaries of the nearby regions. There is a weakness, therefore, concerning the organization and the development of the national and international channels of commercialization on one hand and the development of the commercialization of the short supply chain on the other, seen that direct-trading in factories, which addresses private consumers, is marginal. It is also interesting to point out that, similarly to the other points of strength identified during the programming phase, we find the same tendency towards the agricultural biodiversity and the usage of sustainable agricultural techniques. Both these points raised can be connected directly to the development of short supply trade channels, seen that, for example, the development of the famers' markets could push small agricultural producers to use more sustainable agricultural techniques in order to fulfil the needs of a target of consumers who are on one hand more and more interested in ecological and social issues and, on the other, are concerned with the quality of the agricultural products.

In the Basilicata region there hasn't been an inclination towards creating associations among agricultural producers. This determines negative consequences both for the organization of the traditional agricultural supply chains and could also represent a limit for the organization of short supply trade channels. In fact, it is necessary for any kind of short supply chain form of organization (farmers' markets, box shems, ethical purchasing groups, etc.) to collaborate with different agricultural producers in order to guarantee an adequate range of products and a temporal continuity of the supply of products able to satisfy the requests of the consumers. In response to this situation, the RDPs of the Basilicata region highlights the need to support the creation of a network of factories and to support the supply chain approach in order to *"extend the process of integration of the agricultural factories in the regional production supply chain, supporting the creation and the development of productive channels and expanding the commercial ones"*.

The RDPs also highlights the need to promote forms of trade that reduce the distance between the producers and the final market. More specifically, the PSR highlights that *"the creation of local markets destined for high-quality products and the short supply chain, beyond rewarding economically the producers who face higher costs (due to the production of organic and high-quality food), has opened new trade frontiers (direct trade and supply to specialized food services) and has answered the final consumer's requests regarding the healthiness of the food"*. Therefore, it is necessary to encourage these alternative commercial possibilities, which represent a form of income for many producers, through the promotion of joint action for the aggregation of the supply (such as specific forms of logistics) and by promoting awareness concerning the qualitative and organoleptic characteristics of the products through information campaigns.

Furthermore, the RDPs of the Basilicata Region 2014-2020 identifies a series of specific needs, among which the need to support the agriculture of the protected areas, in as much as it plays a key role for the conservation of the environment, of the natural resources and of the maintenance of the biodiversity. In this document, the protected areas are envisioned as areas where to experiment new and advanced farming techniques, with particular attention to the *"tipicizzazione"* of the products and to the conservation of the rural areas. Also in this case, the creation of short supply trade channels could turn out to be a winning strategy, which would lead high quality productions to new commercial frontiers, giving a part of the added-value of the products back to the farmers, ensuring them an adequate income. Ultimately, the development of the short supply chain is part of the strategic guidelines of the *"Rural Development Programmes"* of the Basilicata region and takes on a key role for the promotion of a sustainable rural development, which would be able to re-launch the development of the region.

The Sicilia region, on the other hand, is placed first on a national level for what concerns the organic agricultural production and during the past years production methods with a low environmental impact have increasingly widespread. However, the sector also presents considerable points of weakness, among which a difficulty in organizing the supply chain, an inadequate use of quality management systems, of food security, of traceability and the lack of adequate logistic areas for the transportation of fruit and vegetables. Implementing short supply chains, by cutting-down the intermediaries, could guarantee a higher traceability of the agricultural products and could satisfy a growing demand on behalf of the consumers of products concerned with high levels of food safety.

5. Short supply chains in the Basilicata RDPs 2014-2020

In the RDPs 2014-2020 of the Sicilia region, using and supporting the strengthening of the direct relationship between the producer and the consumer (short supply chain, direct trade, farmers' market and GAS) is highlighted as an opportunity for the region. It also highlights the growing interest of the consumers towards the environmental sustainability of the products, of the productive process and, more generally, towards the corporate social responsibilities. Furthermore, also in this case, by supporting the development of short supply trade channels the survival of small producers could be guaranteed and it would reduce some risks, such as the depopulation of the rural areas and the disappearance of local typical productions.

One of the goals of the RDPs is to take action by supporting the investments and the reinforcement of the agricultural competitiveness, through the increase of the productivity and of the firm's value-added. Moreover, the need to "*subsidize the development of the markets, also through investments, in the phases of transformation and of commercialization, aimed at closing the supply chain (internalization, short supply chain, local markets), giving priority to quality productions*" is highlighted. It is interesting to underline how, in the RDPs, the increase of competitiveness of the agricultural sector depends on the development of the markets and, in particular, on the development of the supply chains addressing external trade and short supply chains, which, therefore, take on a key role in the pursue of their objective.

The RDPs also highlights the need to support the cooperation between the subjects of the supply chain: through initiatives aimed at increasing the added value of the production, to the improvement of the efficiency of the trade channels and the market outlets. On one hand, the need to introduce organizational innovations able to strengthen the producers' role is highlighted, on the other, the need to support the development of the short trade channels, especially for the fresh products and the high-quality productions, is emphasized. Finally, other measures of the RDPs concern the creation of producers' associations and organizations. The aim is to oppose the producers' traditional condition of economic weakness to the firms that work on the transformation and the marketing of the agricultural products. The document underlines that "*a concentrated and coordinated supply is a necessary factor to develop for the structural strengthening of the producer*". Subsidizing the producers' associations and the organizations is also fundamental for the short trade channels.

The similarities observed among the RDPs of the regions examined partially stem from the exchange of views that had taken place before the organizational phase between the representatives of the regions. Despite the different peculiarities characterizing the agricultural sector of the three regions, the short supply chain is undoubtedly a tool that can contribute to a beneficial paradigm shift, in which the firm, beyond trying to make profit, can also pursue a bigger objective concerning the sustainability and the well-being, not only of the economy, but also of the society and of the environment.

6. Conclusions

In an increasingly globalized economy, it has become vital for the various local and regional systems to adopt positioning strategies able to guarantee them dynamism and competitiveness. In particular, for the agricultural rural areas it will be necessary to enhance their typical and high-quality agricultural productions, in order to guarantee the economic development of the area. The short supply chains could be a tool enabling the commercialization of these productions, guaranteeing an adequate income to the agricultural producers, a high standard of the productions that would satisfy the demands of the consumers and, more generally, a competitive development of the rural areas.

The agriculture plays a fundamental role in the pursue of the welfare, in as much as this sector produces what we eat and the firms that work in this sector oversee the rural areas. It is necessary, therefore, to implement policies that are able to foster a sustainable development of the rural areas, in order to guarantee the establishment of a sustainable development model for the areas in question.

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