

**The CAP and national priorities
within the EU budget
after 2020**



INSTITUTE OF AGRICULTURAL
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The CAP and national priorities within the EU budget after 2020

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14. Agricultural policy in the servitized economy

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Abstract

During last decades the essential shift occurred in the structure of the economy from industrial product-driven to the post-industrial service-driven economic system. A growing number of manufacturing firms throughout the world are shifting from selling goods in anonymous market to offering more and more services alongside their products. This movement is termed “servitization”. The movement is pervading almost all industries but still is weak in agriculture. The aim of this paper is to analyse the factors that have a negative impact on the attractiveness of farming and the needs of new farmers’ generation calling to develop agricultural policy in line with challenges of servitization movement. The last chapter highlights the recommendations for CAP2020+ on support for servitization in agriculture corresponding to the success factors of the service-driven business model.

Keywords: service-driven economic system, servitization, business model, post-industrial stage, agrarian and rural development policy

JEL codes: A11, Q01, Q10, Q18

14.1. Introduction

The 21st century is often described as a stage of post-industrial or knowledge society, where people found themselves in a world of totally different values, compared to the several centuries lasted industrial era. In the present stage of post-industrial society the factors of economic success are essentially different from those in industrial society, with difference being as great as between the factors affecting economic success of agrarian and industrial society. This stage began when the service sector have started to dominate in the economic system. These changes can be clearly illustrated by an example of data of the Organization for Economic Cooperation and Development (OECD) – service sector of 16 OECD countries amounted on average to 39% in economic structure in the years 1950–1960 and in the next years of 1990–2000 increased until 70%, when the share of the agrarian sector has decreased from 25% until 4% in the same periods

[OECD, 2006]. Changes occurred not only in the traditionally classified economic structure. In the last decade of the 20th century revealed new tendency to provide services not only by specialized service companies but also by industrial or agricultural enterprises. This new tendency to organise business was called “servitization”. The term “servitization” was mentioned firstly in the article “Business servitization: increase of the value by increasing the volume of services” in 1988 written by S. Vandermerwe and J. Rada. Subsequently, this concept has become more and more widely used in academic and professional business literature, and has become one of the most popular newcomers describing the ‘new economy’ over the last couple of decades.

The servitization of economy forms a new stage in the development of society, essentially different from the previous one – the industrial stage. Disparities in the post-industrial stage are becoming more and more evident every day and can be compared to the previous major transformation of the economic system development from the agrarian to the industrial stage, so-called ‘industrial revolution’. However, the concepts of the industrial economy are still used while analysing activities of the agricultural sector and innovations related with specifics of the post-industrial stage are not defined as servitization of farming. For example, all efforts made by farmers to apply new business models aiming to respond to the needs of consumers for fresh, locally produced food are defined as the desire to shorten food supply chain. However, the business model when farmers take direct sales in order to reduce the number of intermediaries involved in the supply chain are fundamentally different from the transformations of the business model when an industrialized agricultural producer implement ‘product plus service’ system instead supplying their products to an anonymous food market.

The aim of this paper is to analyse the factors that have a negative impact on the attractiveness of farming and the needs of new farmers’ generation calling to develop agricultural policy in line with challenges of servitization movement. The last chapter highlights the recommendations for CAP2020+ on support for servitization in agriculture corresponding to the success factors of the service-driven business model.

14.2. Reasons to use servitized business model in agriculture

Although many developed countries in the world have been living in industrial economy for centuries, the industrialization of the agricultural sector has started not so long time ago. Accordingly to the economic history of agriculture massive industrialization of agriculture has started only after the Second World War. Agrarian sector experienced a real revolution in developed (northern) countries due to the widespread mechanization, electrification, irrigation and

chemization of agricultural processes [Clunies-Ross and Hildyard, 2013]. The success of an industrialized farming system was based on a business model combining three production strategies: extensive growth, intensification and specialization [Vidickiene and Melnikiene, 2014]. That allowed ensuring stable farm income level by increasing overall production volume and technical efficiency of production [Van der Ploeg, 2000].

At the end of the 20th century, the success of business model oriented to the scale effect, intensification and narrow specialization has ended. This was a result of the growing list of factors that have a negative impact on the attractiveness of farming:

- The dramatic increase in industrialized labour productivity and the use of monetary and agricultural policy tools have eliminated the food shortages in developed countries caused by the Second World War and the extensive growth strategy has become ineffective.
- Constantly increasing costs of production related to i) ‘technological treadmill’ pressing farms to invest continuously in new technologies [Cochrane, 1979], ii) increased requirements for nature protection in specialized farms, iii) increased quality of products requested of food industry. The above mentioned factors reduced opportunities for farmers to gain a huge leap in productivity by implementing an intensification and specialization strategies as it was at the beginning of industrialization.
- The growing dynamism of the business environment because in the 1990s many developed countries has started to implement a free market and free trade model in their countries. Climate change is also a growing risk determinant to agricultural businesses.
- The globalization of the economy, which made the success of farming dependent not on personal efforts but on changes in liberalized world markets for food, energy and other agricultural commodities.

Assessing the growing impact of the above listed factors, farmers begin to consider farming as a risky and unattractive activity. Results of empirical studies show the situation that in the developed countries in the last two decades is not only the lack of successors to family farms, but also the lack of individuals who wish to take farms of retired farmers [Baker et al., 2016; Chiswell, 2012; Uchiyama et al., 2008].

Limitations of an industrialized agricultural business model in post-industrial society are calling farmers to use servitized models of business that have started to emerge in other sectors. Manufacturing companies producing technically sophisticated equipment and vehicles have started servitization process first. In addition to their core production, they provided services in financ-

ing, operating, maintaining and updating their own or other manufacturers' products installed in the production process. For example, Rolls Royce, a company that produces jet aircraft engines, earns a share of its revenue by leasing its engine performance on a pay-per-hour basis, and providing its comprehensive product maintenance service to ensure that engines run smoothly. Some industrial companies have started to use a service-driven business model giving priority to the provision of services. For example, the Xerox Company, initially known for photocopiers, now positions itself as an enterprise for business processes and management. In recent years, Xerox has branched out to offer document publishing and production services, document management, and business process outsourcing. Today, over half of Xerox's business comes from services. After some time other manufacturing companies also have started to use servitized business model with system 'product plus service'.

Servitization in manufacturing companies is already widely and thoroughly studied in scientific literature [Lightfoot et al., 2013]. Unfortunately, in contrast to the researchers, being active over the past three decades in creating of business models that integrate products and services of the companies and analyzing their success factors, researchers focusing their research on agribusiness and food industry are still giving little attention on business models in agriculture, assessing their sustainability and innovation [Ulvenblad et al., 2014]. Although recently the issue of the sustainability of the agricultural sector has been analyzed very often, research is not oriented to promote innovative business model in agriculture by shifting from the "product-focused" to a "service-focused" model.

Although the scientific and professional literature is lacking guidelines of business servitization processes in agriculture and in other activities of farmers but these initiatives have started to emerge in the practice. A group of farmers is emerging, called the 'new farmers' generation', aiming to find alternatives to the business models established during the industrialization of the agricultural sector in the servitization framework. At the beginning, the vision of business model of a new farmers' generation was based on willingness to shorten food supply chain, by creating farmers' markets and starting direct selling of farm products to the end-users [Coster, 2004; Coster and Kennon, 2005; Guthrie et al., 2006]. During the period of industrialization of agriculture, many intermediaries as processors, warehouses, transporters, and traders stepped between the farmer and end-users of their food products. Extremely large part of households in developed countries began to buy food at supermarkets, and purchasing food in farmers' markets became increasingly unpopular. Increasing number of intermediaries in the food supply chain had a profound impact on farmers' incomes.

In the sixties and seventies farmers received 40–50% of the food prices set by supermarkets. The share of farmers in developed countries since the eight decade of the 20th century is usually not more than 10% (Guthrie et al., 2006). The new generation of farmers has started new initiatives to develop alternative local food markets, revitalizing traditional farmers markets in cities, creating shops in their own farms, delivering food to the customer' home or workplace, etc.

Although many farmers are using a simple business model for farming servitization by offering production of desirable food box and its delivery to the consumers' home or office (product-oriented service), empirical studies indicate that some farmers have started to use more complex systems as 'product plus service' or 'resource access plus service'. It can be rental of a fruit or kitchen-garden, where residents of the city get the opportunity to grow their own vegetables and fruits, and they are also constantly consulted on how to do all the necessary work. Community-based farming is becoming increasingly popular, when city residents partly finances a production process in the farm, or even engages in economic activities of farming from the very beginning of the production cycle with the aim to get products they want, and also to gain knowledge about agricultural production and spend their leisure time in the way interesting to them.

There are also B2B (Business to Business) models of service provision where small farmers provide services to large ones, for example, chicken of special breeds are hatched on request, and then small farmer take them to a large farm, where they carry out further operations in the production cycle: growing up to the time of sale, slaughtering and selling. It allows for the improvement in the quality of the agricultural products, the use of more environmentally friendly technologies and the production of food products that are more nutritious and healthy [Baluch et al., 2017]. Servitized model is used in livestock sector [Pereira et al., 2016], crop protection [Pereira et al., 2018], etc. There is a growing demand for proposals of companies that have started using servitized business model and produce various agricultural machinery, to lease rather than buy farming equipment according to the needs of farmers [Corti et al., 2013].

Conservative policy-makers are quite sceptical about the ideas and opportunities offered by the new generation of farmers to create a sustainable source of income for the production of customized food made to order or other services despite a lot of successful cases demonstrating that the transformative power of business model innovation is really impressive. However, many initiatives of farmers oriented to service-driven business model have failed, as small groups of farmers did not have the capacity and ability to resist global food markets. Therefore, a priority should be given for agricultural and rural policy measures to promote servitization in farming.

14.3. Summary and conclusions

New opportunities to get requested information immediately and ability to manage this flow using modern information and communication technologies have created an extremely dynamic business environment and all previous business risk management practices have become ineffective. In such circumstances it is important not only the increase in labor productivity, but also the reduction of business risk. Services can be attributed to the least risky products, and their demand is growing. In addition, servitized business model helps not only to increase revenue, profit margin and the scale of sales but also creates the opportunity to obtain loyal consumers and reduce the number of competitors. The use of various government programs supporting innovative service-driven business farms can become an effective tool to help develop agriculture and the economy of rural regions. Unfortunately, in the current documents defining agriculture and rural development in the EU, the term ‘servitization’ is not mentioned at all. In our opinion, the EU needs to develop agricultural policy in the new programming period after 2020 in line with the success factors of the service-driven economic system, which corresponds to the needs of new farmers’ generation oriented towards servitization of farming.

Although new farmers’ generation become an important organizational force for the development of rural economy and community, there is given little attention to the interests and vision of farming of this generation when planning financial support tools. The new farmers are proposing completely different and innovative business models but their approach is not considered as an important factor that can increase the attractiveness of farming and vitality of the countryside. Although one part of ideas of new farmers’ initiatives is in line with EU programme requirements for the European Innovation Partnership (the EIP), which aims to promote a short food supply chain and diversification, creation of support mechanisms based on industrial product-driven business model that focus to provide products for the anonymous market. Therefore, many steps are needed to move to a service-driven business model by building relationships with the client are considered to be irrelevant to increase farm sustainability and are often considered as not eligible for funding.

Transition to a service-driven business model requires radical changes in the paradigm of agricultural and rural development policies because servitization of farming is a multifaceted transformational process. It requires rethinking all aspects of business: production structure and methods, marketing, pricing, service delivery infrastructure and financial management. Summarizing the latest research on the serviced business model in the manufacturing sector [Kindstrom, 2010; Reim, 2015; Foss and Saebi, 2017], it is possible to assume

that the greatest potential to help implement service-driven business vision of the new generation of farmers' by economic policy measures has to be the support for collaboration strategies [Vidickiene, 2018].

The collaboration with consumers is especially big challenge to farmers because the supply chain of agricultural products has become very long and they have lost their connection to their final consumer over the past half century. Therefore, the most important area requiring state aid becomes facilitation of tools for coordination of relations between economic actors. This means that support mechanisms must be based on the latest management theories emphasizing the business model based on the paradigm of co-creation [Ramaswamy and Ozcan, 2014] in service provision, where a part of the new value is generated not by services provider but by the clients. Considering this fundamental change in the value creation process, the key future objective of improving the EU's agrarian and rural policies is to provide support measures to innovative cooperation between farmers, as service providers, and their consumers. The key to success should become the implementation of a variety of new collaboration models reducing farming risk and generating synergetic effect by value co-creation.

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