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Service-Driven Farming: Keeping Quality of Life for Ageing Rural Community

Abstract: *Early retirement from farming was proposed by many of the EU measures. The age structure in the EU currently demands a shift from such an outdated approach, and to focus on the highly-valued experiences of elderly people, which should be utilized by involving them in social and economic activities. Among the key challenges for rural development policy aiming to increase the quality of life of elderly, next to the traditional help and support measures, is the involvement of the elder generation in economic and social life. Therefore, the new EU agricultural policy measures should ensure that funding and institutional incentives support extending the working and active social life of the elderly farmers. One of the possible ways to change such an approach deals with servitization. The literature on servitization in manufacturing has been growing rapidly in the last decades, but only a few studies demonstrate how to apply a service-driven business model in agriculture. This paper aims to demonstrate a creative way to use a service-driven business model in farming and, at the same time, the ability of servitization projects to influence the vitality of rural communities by generating economic, social, and cultural effects. A case study on an innovative servitization initiative in rural areas of Lithuania “Rent a piece of garden” is used as a theory generating approach, which considers the needs of the elderly rural generation.*

Keywords: *economic system, service-driven, business model, servitization, rural community*

Societies in most of the EU countries are ageing significantly, and this tendency is more marked in rural regions. In most countries the proportion of elderly people in the population is higher and it is growing more rapidly in rural than in urban areas (UN, 2019; Eurostat regional yearbook, 2018). Therefore, caring for the elderly is expected to present greater economic and social challenges in rural areas. Recent rural development policy is mostly focused on the negative aspects of rural community ageing. These are described in the studies analysing how limited access to various services, long distances and lack of public transportation, isolation and poverty affect in particular the elderly in rural areas (Shucksmith, Chapman, 1998; Scharf, Walsh, O'Shea, 2016). However, other studies have shown that there exist some positive aspects of ageing in rural communities, including strong social networks, social integration, and a healthy and safe environment (Winterton, Warburton, 2012; Bowling, 2005). All positive aspects should be employed to support and increase the vitality of rural communities by encouraging them to be more active in economic and social life, and attracting new inhabitants and visitors.

In our opinion, the most important strengths of the elderly are the knowledge accumulated over a long time and their wish of participating in social networks. The elderly have a wealth of experience and intangible knowledge that is very important in the knowledge-based society and should be shared and utilized in their communities. Therefore, the elder generation can become an active actor of networking-based servitized economy and social life because social networking is especially important for the elder generation. According to the studies, the elderly: i) are more likely to live in the same community for most of their lives than younger generations (Phillipson, 2001), and ii) tend to spend more time in their local neighbourhood than younger and employed people do (Means, Evans 2012).

New way of rural development in the framework of servitization movement can propose new tools for involvement of ageing rural community to use opportunities of service-driven economic system. The term “servitization” was first introduced in 1988 in the article by S. Vandermerwe and J. Rada “Business servitization: adding value by adding services to products”. Their paper is upbeat about the role of services, arguing that services are sweeping the industrial landscape. “Servitization is happening in almost all industries on a global scale. Over the last couple of decades, the term ‘servitization’ has become one of the most popular new terms describing the ‘new economy’. Swept up by the forces of deregulation, technology, globalization and fierce competitive pressure, both service companies and manufacturers are moving more dramatically into services” (Vandermerwe, Rada, 1988, p. 315). The literature on servitization in manufacturing is growing rapidly during last decades (e.g. see systematic literature reviews by Tukker & Tischner, 2006; Baines et al., 2009; Vasantha et al., 2012; Lightfoot et al., 2013; Reim, Parida, & Ortqvist, 2015), but only a few studies demonstrate how to apply

service-driven business model in agriculture (Baluch et al., 2017; Quazi et al., 2019 ; Vidickiene et al., 2019). Although recently the issue of sustainability of the agricultural sector has been analysed very often, the research is not oriented to promote innovative business model in farming by shifting from the “product-driven” to a “service-driven” model. The concepts of the industrial economy are still used while analysing innovations in the agricultural sector dealing with the servitization of farming.

The aim of the paper is to demonstrate the ability of servitization projects to influence the vitality of ageing rural communities on the example of a case study on the innovative servitization initiative “Rent a piece of garden” in rural regions of Lithuania. The case was studied with the aim to extend the understanding of nontraditional ways of rural development by examination of organizational principles and components of service-driven business model in agriculture relevant to the elder generation.

Research Methodology

The case-based research was chosen for this analysis as a way to deepen the understanding of the mechanisms of servitization by conceptualization of organizational structure of servitization project. The unit of analysis for the research was social project “Rent a piece of garden” initiated in Lithuania. Project “Rent a piece of garden” was created with the aim to instigate collaboration between small-scale elderly farmers and city residents who want to grow vegetables and fruit in the countryside. This project provides empirical evidence of service-driven business model potential to be used for rural development, especially in the context of ageing rural population. Specifically, we focused on investigation of the components of service-driven business model in agriculture designed with the aim to develop ageing rural communities.

A semi-structured data collection protocol was focussed on determining how and why project participants had begun to deliver servitized offerings and what kind of positive effects generates the servitization initiative. Data has been collected over a period of three years of observations of the project evolution from 2017 to 2019, and through in-depth and informal personal interviews. Interviews were conducted with 2 project leaders and 10 ordinary participants: small-scale elderly farmers and city residents. In addition offline and online documents were studied, among them advertisements, blogs, Facebook and fan group networking pages. Analysis and interpretation was performed through constant comparison between the specific data of the case and the remaining literature and theory of servitization and two-sided networks.

The guiding interview questions were organised around key components of two-sided network based on servitized organisation principles:

1. Who are the initiators, the managers and the sponsors of the project?
2. What are the main goals of the project?

3. How organizational structure of the gardening servitization initiative is organised?
4. How organizational process of the gardening servitization initiative is organised?
5. What are the effects of servitization?

The aim of the case study was to identify organizational principles and components of this specific version of service-driven business model by examination of the following issues:

- How the two-sided network between elderly rural residents and city residents has been organized by building *a regional platform of the network*.
- What kind of *interactions* could be helpful for elderly rural residents to start and develop the servitization of activities.
- How the regional project generates *economic, social and environmental effects* supporting the vitality of ageing rural community.

Results and Discussion

The findings from the case study gave insight to several organizational principles and components of the service-driven business model relevant to ageing rural community.

Building a regional platform of the network. The initiators of the project have created a regional platform (two-sided network) which aims to establish and boost the networking between the ageing rural community and the city residents. The platform concept is based on: (1) user needs and expectations, (2) solutions, (3) tangible and intangible value proposition for the network members.

The project “Rent a piece of garden” was created to encourage collaboration between people from rural areas and small towns and the city residents who want to grow their own vegetables in the countryside, to spend more time in nature, to communicate and cooperate with people from rural areas and small towns. Before starting the project, the initiators have noticed increased demand from the society, especially city residents, for new innovative services from rural areas in which they can take part.

Creation of the two-sided network was chosen for this collaboration. One side of the network is elderly residents from rural areas (such as farmers and other rural residents) and people from small towns that participate in the project. They dedicate a part of their land to gardening, and they receive about 10–15 percent of all harvest from this piece of land. Participants from rural areas, who are renting their piece of garden, in most cases are retired people. The rural residents participating in the project have the opportunity to establish close contacts with the city’s population, communicate with them, receive some social services (for example, asking the cooperating city

residents to purchase some food or medicines before their visit, drive them to the city to run some errands, etc.). Other side of the network are the city residents willing to grow vegetables. Most often, city residents taking part in the project do not have any links with rural areas and do not want to move away from the city, but they want to establish a close relationship with the rural population and nature.

This project enhances the vitality of the aging rural community as many project participants, renting their piece of garden, are retired rural residents that are willing to provide some services. The project also contributes to the promotion of healthy lifestyle and the consumption of local food.

Preparatory work for implementation of the project idea has started in July, 2015. In January, 2016 the initiators of the project have started to search for participants ready to rent a part of their garden – their target group was elderly people that have part of their land free for gardening and ready to rent it to the city residents. Various channels were used for searching the above-mentioned participants, firstly, asking friends that have a direct relationship with retired people from rural areas, who know them personally and could provide them with information about this project. The initiators of the project also cooperated with the Lithuanian Caritas organization, the association zali.lt (Green.lt), the church communities and the rural communities. At the beginning of the project, 10 participants were ready to rent a piece of garden for city residents to grow vegetables. Most of the participants were from villages located in close proximity to the largest cities of Lithuania, Vilnius and Kaunas (Melkys village, Visakio Rudos village, Giedraiciai village). Later the initiators of the project have started to register participants who want to grow vegetables. They were asked to create groups and to work in teams, when planning planting and maintenance work, harvesting, etc., so that individual participants did not need to go to the garden every week.

The co-creation principle was used in development of the first project activities aiming to find the best ways to organize the gardening process, to make it attractive for both sides of the network. The first project event for project participants was organized in March 2016. During the event the organizers explained the main rules, agreements, etc. Later the same year, more events were organized, such as trainings on healthy lifestyle, gardening, composting and similar.

Currently the project leaders are working on:

- development of the project activities throughout the territory of Lithuania, i.e. enlargement of regional platform and creation of national platform;
- design of a regional platform that will be more attractive for the prospective participants of the network and will enable core interactions between members of the network;
- involvement of network members into designing of new or improved national platform tools.

Interactions between network members to start and develop the servitization of activities. Sustainability of the project depends on the ability of each farmer/ rural resident to provide services reflecting the main ideas of the project. The strategic goal was to establish and boost the core interactions between farmers/ rural residents and customers/ city residents. The farmers/ rural residents should take part in different kinds of interactions with customers/ city residents, including:

- economic interaction (reasonable and flexible membership fee and transportation costs);
- information interaction (consultations on how to grow and harvest vegetables, differences between traditional and organic agriculture, ecosystems, permaculture, etc.);
- social interactions (meetings of the consumer group, services for farmers, additional leisure activities);
- emotional interaction (food tasting and cooking events).

Summing up the first results of the project implementation, the initiators of the project have agreed that the following conditions are requested for successful implementation and development of servitization of activities:

1. The place of living/ location of the rural project participants that provide services to other members of the network should be in rural and semi-rural settlements located near the metropolitan areas, so that the distance from the city to the place of gardening is not too far and that it is easy to reach.
2. For most urban vegetable growers, it is important to reach the place of gardening with public transport.
3. Another very important aspect is the availability of water in close proximity to the garden, because it is very inconvenient to bring water to the garden from great distances.
4. The attractiveness of the place not only geographically, but also in terms of the natural resources. The city residents are willing to come to the garden and to spend the remaining time in nature, socialize with the residents of rural areas and engage in community-based activities.
5. Villages located at greater distances from major cities can also participate in the network, but in this case they need to have unique features so that participants are determined to travel longer distances to grow vegetables. One such example in the network is Tadas Lomanas, a participant of the project, who invites to grow vegetables in his place located in Moletai district, about 65 km away from Vilnius. The owner has been engaged in natural agriculture for many years and network members who have chosen his place to grow vegetables additionally learn more about natural agriculture, participate in seminars organized by owner of this land.

Economic, social and environmental effects supporting the vitality of ageing rural community. Multifaceted impact of servitization is measured by the following effects:

- Economic – farmers/ rural residents still use the land for production and income generation, no additional investment is needed;
- Social – elderly people have the ability to communicate, participate in community activities and various events, also to get some services;
- Environmental – such initiatives enable to restart the use of land, for example, abandoned land;
- Cultural – elderly people have the ability to participate in various events, to spread their knowledge to young people, organize various cultural activities.

Summing up the first results of the project implementation, initiators of the project have highlighted the following multifaceted impact of servitization:

1. One side of the network – the elderly rural residents. *Economic effect:* Owners of plots of lands located in rural areas as service providers (one part of the network), most of whom are elderly people, receive about 10–15 percent of production of harvest from their plot of land. *Environmental effect:* Participants have the opportunity to restart the use of land, for example, abandoned land, thus ensuring that land is not abandoned, members of the network are taking care of this land, etc. *Social effect:* Elderly people as service providers have an opportunity to communicate, to participate in community activities and various events, also to ask the city residents, who rent their piece of garden, for some services and support (for example, to purchase some products in the city). The largest impact is the *increased vitality of the ageing rural community*.
2. Other side of the network – the city residents. *Economic effect:* The recipients of the services that include mostly the city residents (another part of the network) have the opportunity to grow vegetables for their own consumption. *Social effect:* they can spend their time outdoors, escape from the city, integrate into a community of people with similar interests and jointly organize various social activities and events. A large part of the city residents involved in the project are young families who are interested in involving children in all project activities, i.e. showing them how to plant and grow vegetables and fruit, develop other skills relevant to child-rearing.
3. Potential member of the network – the governmental institutions. *Social effect.* Involvement of local government in the project is not yet developed. The idea of the project was presented to some rural communities with the aim to start collaboration with social workers in these communities and to find elderly people who would like to join this project.

Development of the regional network in the future and ideas for creation of the national network “Rent a piece of garden”.

At the beginning of the project in 2016 all activities were mainly concentrated in Vilnius region by creating regional network. Later project involved more regions from Lithuania. Other Lithuanian cities – Kaunas, Klaipėda, Šiauliai and Panevezys cover large territory of Lithuania. For the network development, it is necessary to invite more people to the project team who will contribute to various organizational tasks. At this stage, most of the team members are volunteers in this project. Residents of villages participating in the project, especially young people, can become project volunteers, thus engaging in new additional activities in the village, strengthening social relations with the rural population and getting new work experience.

In the future, it is planned to organize various festivals for the project participants, to share their experiences, discuss new ideas and topics. The initiators of the network highlight that networking is the main way to establish and develop co-creative interactions. Use of this platform can help to gather all ideas and opinions of the members, e.g. how to develop services, what improvements are needed and how to find other ways for new initiatives.

The initiators of the project have a concrete plan for future development. First of all, it is planned to develop this project by attracting more rural residents to join this project from the villages that are already involved in this project. For example, one of the network members – farmer of Melkys village, who invited city residents to grow vegetables in her garden – have told the project initiators that her neighbours also expressed their interest in joining the network and starting activities next year when they have heard of her success story.

Secondly, in order to enlarge the project and increase the number of members of the network, it is necessary to find more volunteers who would like to join the project by providing various services (e.g. programming, designing, communicating, training, etc.). It is possible to invite residents of the villages participating in the project, especially young people.

Thirdly, the initiators of the project also plan to organize more seminars and trainings on ecology, harmonious lifestyle, healthy eating, horticulture, etc. To organize more trainings, it is necessary to include more participants who can deliver lectures (for example, eco-students from various higher education institutions, etc.).

Finally, in the near future, the initiators want to update their website by adding more attractive and informative elements as to create a separate section where project participants can describe their experiences of cooperation with network members each season (i.e., to write their own blog). It is also desirable to start preparing newsletters that contain relevant information related to the implementation of the project.

Conclusions

Recently, the EU policy measures have been widely applied to encourage early retirement from farming. Current age structure of the society requires opposite approach. The key challenges for rural development policy aiming to increase quality of life of the elderly are dealing not only with traditional help and support measures, but with involvement of the elder generation in economic and social life. The new EU agricultural policy measures should ensure that funding and institutional incentives support extending working and active social life of the elder farmers.

One of the possible ways to change this approach deals with servitization. Although the implementation of service-driven business model in agriculture opened up new possibilities to use the knowledge and experience of the elderly generation, servitization movement is still weak in agriculture. The restricted adoption of service-driven business models in agriculture largely depends on lack of research on this topic and guidelines for practitioners.

Our research provides empirical evidence and theoretical explanations regarding to innovative service-driven business model implementation in rural regions. Results of case study revealed multifaceted impact of servitization initiative “Rent a piece of garden” on rural communities in rural regions of Lithuania. Research findings demonstrate that service-driven business model in agriculture and other farming activities has a big potential to increase vitality of rural regions by generating a lot of positive economic, social, environmental and cultural effects. The analyzed servitization initiative also contributes to the general situation in the country by promotion of new eating and consumption habits and healthy lifestyle.

- Baluch, N., Ariffin, A.S., Abas, Z., Mohtar, S. (2017). Servitization in Malaysian poultry contract farming: a critical overview. *International Journal of Supply Chain Management*, 6(1), 259-265.
- Baines, T.S., Lightfoot, H.W., Benedettini, O., Kay, J.M. (2009). The servitization of manufacturing: A review of literature and reflection on future challenges. *Journal of manufacturing technology management*, 20(5), 547-567.
- Bowling, A. (2005). *Ageing well. Quality of life in old age*. Maidenhead: Open University Press.
- Eurostat regional yearbook (2018). Luxembourg: Publications Office of the European Union. doi: 10.2785/411990.
- Lightfoot, H., Baines, T., Smart, P. (2013). The servitization of manufacturing: A systematic literature review of interdependent trends. *International Journal of Operations & Production Management*, 33(11/12), 1408-1434.
- Means, R., Evans, S. (2012). Communities of place and communities of interest? An exploration of their changing role in later life. *Aging and Society*, 32(8), 1300-1318.
- Phillipson, C., Bernard, M., Phillips, J., Ogg, J. (2001). *The family life and community life of people: Social networks and social support in three urban areas*. London: Routledge.
- Qazi, K., Amjad, M., Serotsky, A. (2019). A Product Service System (PSS) Approach in the UK Agricultural Sector—Issues, Directions and implications.
- Reim, W., Parida, V., Ortqvist, D. (2015). Product–Service Systems (PSS) business models and tactics—a systematic literature review. *Journal of Cleaner Production*, 97, 61-75.
- Scharf, T., Walsh, K., O’Shea, E. (2016). Ageing in rural places. In: *Routledge international handbook of rural studies* (pp. 80-91). United Kingdom: Routledge.
- Shucksmith, M., Chapman, P. (1998). Rural development and social exclusion. *Sociologia Ruralis*, 38(2), 225-242.
- Ulvenblad, P.; Hoveskog, M., Tell, J., Ulvenblad, P.O., Stahl, J., Barth, H., (2014). Agricultural business model innovation in Swedish food production: The influence of self-leadership and lean innovation. In *Proceedings of the DRUID Society Conference 2014 on Entrepreneurship-Organization-Innovation 2014*. Copenhagen Business School (CBS), Copenhagen, Denmark, 16-18 June, 2014.
- United Nations (UN) (2019). *World population ageing 2019*. New York: United Nations.
- Vasantha, G., Roy, R., Lelah, A., Brissaud, D., 2012. A review of product-service systems design methodologies. *Journal of Engineering Design*, 23(9), pp. 635-659.

- Vidickiene, D., Gedminaitė-Raudonė, Z. (2019). Servitization as a Tool to Increase Vitality of Ageing Rural Community. In: *European Countryside*, Vol. 11, Issue 1, pp. 85-97; online ISSN:1803-8417; DOI: 10.2478/euco-2019-0006.
- Winterton, R., Warburton, J. (2012). Ageing in the bush: The role of rural places in maintaining identity for long term rural residents and retirement migrants in north-east Victoria, Australia. *Journal of Rural Studies*, 28(4), 329-337.

