Review Article

Economics of Agriculture 2/2013
UDC: 339.13:631.115.11(497.4)

MODELS OF PARTNERSHIPS AND ORGANISATIONAL FORMS IN SHORT FOOD SUPPLY CHAINS IN THE SLOVENIAN MOUNTAINS

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Summary

An important condition for the efficient production and marketing of local food products in mountainous regions is broadly recognised in cooperation between different partners along the food supply chain. Cooperation between different actors, organisational forms and sectors is especially important in mountains and less favoured areas characterised by limited conditions for agriculture and, consequently, where few raw materials are produced. This article presents a study aimed at identifying the positive effects of cooperation between actors, organisational forms and sectors in the production and marketing system of local food products in the Slovenian mountains. Ten products were included in the study. The results indicate that the presence of the private sector both in the production and marketing system is an important condition for creating a successful and solid food supply chain.

Key words: *mountain food product, short food supply chain, actors' partnership*

JEL: *Q1, Q19*

Introduction

The mountains in Slovenia cover 72.5% of the total surface area and are characterised by high altitudes, steep slopes, low population density and an economy dominated by forestry and agriculture. Mountain agriculture in Slovenia is extensive, with low input and output farming systems. The farms are small compared to the national average, in terms of utilised agricultural area (UAA), mostly pluriactive, with an inconvenient socio-economic structure and are decreasing especially in the most remote and less favoured areas. Perpar (2002) outlined the following important reasons for the decline in the number of mountain farms: Young farmers do not see a future in farming, agricultural income is low, farms are small and agricultural land is spread out, the natural conditions for agriculture production are inconvenient and there is a deficiency of farm successors. Regardless of the unpopular image of mountain agriculture and farming, agricultural production still plays an important role in maintaining the cultural

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landscape and preservation of the population in rural areas. Furthermore, agriculture very often represents the basis of the local economy and is closely inter-related to other economic sectors, such as the food industry and tourism. The food production in mountainous regions is generally oriented towards high quality local food production. According to the EuroMARC (2010) project, mountain food products are perceived as pure, traditional and quality food closely linked to the local area, its cultural identity and local employment. In Slovenia, mountain food is generally included in short food supply chains. The term short food supply chain (hereafter referred to as SFSC) refers to the places where direct contact between producers and consumers occurs, producing advantages like confidence, maintaining integrity and consumer trust. SFSCs also play a central role in encouraging food production on small farms, in supporting local food networks and in contributing to healthy local economies (according to USDA, 2010). Marsden et al. (2000) stated that a key characteristic of SFSCs is their capacity to re-socialise food, thereby allowing the consumer to make value judgements about the relative desirability of foods on the basis of their own knowledge, experience or perceptions. The three main types of SFSCs are as follows:

- Face-to-face – consumers purchase products directly from the producer/processor on a face-to-face basis;
- Spatial proximity – products are produced and sold in the region of production, and consumers are made aware of the local nature of the products at the point of retail;
- Spatially extended – value and meaning laden information about the place of production and those producing the food is translated to consumers who are outside of the region of production.

The above-described types of SFSCs are not equally represented in Slovenia; in general, the majority of the SFSCs in the mountains are face-to-face and only few have spatially extended characteristics.

Parallel to an increased number of SFSCs is the establishment of different market channels, especially in the context of spatial proximity and spatially extended SFSCs. Irrespective, different partnerships, especially between the public and private sectors, is still a rather uncommon trend. Indeed, the most common public-private partnerships (PPP) appear almost only within projects supported by LEADER funds and via Local Action Groups (LAGs). The effects and achievements of LAG food linked projects and PPPs in the Slovenian mountains are diverse and depend on several, and above all, local factors: general development level, geographical position, presence of different institutions and associations in the area, and local individuals.

The aim of this paper is to establish which organisational forms are most common by examining local food marketing projects and which combinations of sectors (public, civil, private) are involved in collaborating on and carrying out these projects. In addition, we attempt to determine which combination has the most positive impact on supporting the SFSC and which contributes the most to the effective marketing of mountain food.

Material and methods

The survey area was limited on the Alpine region, although the mountains in Slovenia also spread into every bio-geographical region. In the Alpine region, the analysis was focused on nine LAG areas. The selection of LAGs was based on the production of local foods and the presence of SFSCs in the area, as well on the implementation of different local food marketing projects. Ten different local food products were examined and their supply chains were analysed. The selection of each food product was more linked to their existing marketing projects than to their ingredients or quality characteristics.

For the analysed SFSCs of the selected mountain food products shown in first and second column in Table 3, different actors along the supply chain, LAG representatives and marketing project leaders were interwoven. We developed a questionnaire comprising open and closed questions designed to obtain information about each local food product, the food project plan and development, the realisation and the outcomes of the projects. Although interviews with the different actors constituted the main information source, for a complete assessment of the mountain food and food chains, we also considered the historical, social and spatial background in each case. The interviews were carried out by well qualified examiners between July 2011 and September 2011.

Methodologically, the study was organised into three linked and co-related sections divided into three main steps. Step 1 include interviewing of representatives of the LAGs, actors along the food chain and project managers as well gathering of historical, social and spatial background data of mountain food products. Step 2 was intended to analysis of interest of different actors in SFSCs for the production and marketing of mountain food products. With the use of multi-criteria decision analysis (MCDA) developed for previously researches on mountain food products we acquired evaluations of production and marketing system efficiency of analyzed mountain food products. Step 3 was designed for identification of SFSC types and different sectors in the production and marketing process of each analysed food product and for analyzing the involvement of different sectors in the production and/or marketing of local food products.

For the research, it was important to ascertain the main production characteristics and the extent of the product's success on the market; thus, we examined the efficiency of production and marketing separately. To assess the production (in particular the production size) and marketing efficiency of the local food products, the DEX model was used. DEX as multi-criteria decision analysis (MCDA) model was chosen on the basis of our previous research, where MCDA proved to have good applicability to similar research subjects (Tojnko et al., 2011); in addition, it is relative easy to use and the results are highly transparent (Alphonce, 1997; Bohanec and Rajkovič, 1990; Galli et al., 2011; Rozman et al., 2009; Pažek et al., 2010; Hyde and Maier, 2006; Tiwari et al., 1999; Saaty, 1980). Although the DEX model was not the main focus of the research, the DEX results were very important for further steps. The input data for the model were provided by the previously mentioned questionnaire. After assessing the production size and marketing system efficiency, the comparison between the DEX results and different types of SFSCs, successful marketing of local food products and

different types of partnerships along the SFSC were applied for further analysis. Different types of SFSCs in the research were adopted on the basis of Marsden et al. (2000) and are represented in Table 1. One local food product could represent one, two or even all three types of SFSCs. Indeed, three of the examined food products (meat product 1, dairy product 1, cooked product) corresponded to all three types of SFSCs; they are mostly marketed on the farm, in the local markets and local shops (dry meat in the local butchery), some restaurants (local or high ranked restaurants out of the region) and even in mega markets around Slovenia.

Table 1. Identification of different types of SFSCs in the examined region based on the location where the local food products are sold

Location where local food products are sold	Type of short food supply chain
On the farm	Face-to-face
Tourist farms / farmhouses	Face-to-face
Local markets	Spatial proximity
Local events	Spatial proximity
Special local shops	Spatial proximity
Restaurants outside of production region	Spatial extended
Supermarkets, Mega markets	Spatial extended

Further, the interest of different actors in the production and/or marketing system of the mountain food products was examined. The actors are associated and are part of different organisational forms, which are manifested in tree types of sectors (see Table 2).

Table 2. Actors, organisational forms and sectors involved in the production and/or marketing system of mountain food

Actors	Organisational forms	Sector
Local producers, processors, retailers	Local companies, SMEs, local shops, etc.	Private sector
Representatives of LAGs and local policy	Public institutions, Municipalities, Development agencies, etc.	Public sector
Representatives of different local associations (e.g. association of dry meat producers), Cooperatives	Non-profit associations and unions, local NGOs, etc.	Civil sector

Between the sectors, different partnerships were recognised:
- public-private partnership – pure PPP,
- public-civil partnership – non-PPP,
- private-civil partnership – conditional PPP,
- partnership between public, private and civil sectors

Results and discussion

The first part of section 3 focuses on interpreting the results shown in Table 3, and the second part focuses on interpreting the results displayed in Table 4. Both tables are compilations of different results and analyses derived from the questionnaire, observations in the mountain area and the characteristics of the analysed food chains.

Table 3 presents the collection of DEX model results, identification of SFSC types and identification of different sectors in the production and marketing processes for each analysed food product. The results are categorised as large, average, average to small and small, demonstrating the wide variety in the production size of all analysed local food products. The qualitative assessments used for the marketing systems of the local food products are also varied: unsuccessful, partially successful and successful. Column 5 of Table 3 displays the different sectors involved in the food chains which are recognised as partners in the production process or marketing of the products. The partnership combinations between sectors are diverse, but the pure PPPs appear only in cases where the private and public sectors are involved. In cases where only the civil or/and public sector are recognised as partners, are defined as non-PPP. According to Table 3, we can consider that pure PPPs appear only in three cases (meat product 1, dairy product 1 and cooked product). All of these PPPs are partnerships supported by the LEADER programme and realised in the frame of LAG food projects. These are also the products which represent all three food chain types and where the marketing is successful and the production large, except in the case of cooked products. The production of cooked products (Pohorje pot) is small, but we could consider this as method faultiness; the final product many contain different ingredients and the production quantity was stated for each ingredient separately. Except food chains supported by the LEADER programme and with the partnership of LAGs, no other pure PPPs were identified. However, often, more than two different types of sectors are involved in the food chain, and the most frequent combination is the partnership between the public and civil sectors. This public/civil combination can be understood by the fact that these are mostly projects with a relatively low budget and profit; thus, they are of little interest to private investors. The next reason for the lack of pure PPPs is that pure PPPs are not yet well recognised and present in the local food projects. If we look separately at food production and marketing, the impact of the private sector is almost equally distributed between the production and marketing of mountain food products.

Most of the mountain food products are marketed inside the region itself. Hence, the most common types of SFSCs are face-to-face and spatial proximity for all analysed food products. Due to the generally small agricultural production, the marketing of these local products is exclusively and successfully performed at the local level. Outside of the local environment, the products are marketed in small quantities and are mostly seasonally available. The products in the spatially extended food chain type are more attractive for the private sector, although the offer is limited. These products are also best evaluated according to their production and marketing systems (grey in Table 3).

Table 3. Introduction of DEX model results, SFSC types and different sectors involved in production and/or marketing for the analysed mountain food products

Food product		Short food supply chain			Sectors involved in production and marketing	Final assessment of production process (DEX model results)	Final assessment of marketing system (DEX model results)
		Face-to-face	Spatial proximity	Spatially extended			
Meat product 1	Zgornjesavinjski zelodec (dry meat)	Yes	Yes	Yes	Private and civil sectors	Large	Successful
Meat product 2	Jetrnica (sausage)	Yes	Yes	No	Civil sector	Average	Unsuccessful
Bakery product 1	Tarragon cake	Yes	Yes	No	Public sector	Small	Partially successful
Bakery product 2	Rye bread	Yes	Yes	No	Public sector	Average to small	Partially successful
Dairy product 1	Tolminc (cow cheese)	Yes	Yes	Yes	Private, civil and public sectors	Large	Successful
Dairy product 2	Bovški cheese (sheep cheese)	Yes	Yes	No	Civil and public sectors	Average	Unsuccessful
Dairy product 3	Solčavski sirnek (dairy product from fresh milk)	Yes	Yes	No	Public sector	Small	Partially successful
Cooked product	Pohorje pot	Yes	Yes	Yes	Private, civil and public sectors	Small	Partially successful to successful
Product from fresh fruit	Cider	Yes	Yes	No	Civil and public sectors	Small	Unsuccessful
Dried fruit		Yes	Yes	No	Civil and public sectors	Average to small	Partially successful

In addition to highlighting which sector is involved or has interest in the production and/or marketing of the local food products, Table 4 below shows the grade of involvement of each sector. The grade of involvement reflects the interest level of each sector. For the results (grades 5–0 or from high to no interest), the questionnaire answers were used. The answers of all of the respondents (different actors along the supply chain, LAG representatives and marketing project leaders) concerning the interest/involvement of different sectors in production and marketing were also used.

Table 4. Quantitative grades of interest/involvement of different sectors in the production and marketing systems

Food product	Production	Marketing and promotion
Meat product 1	Civil sector = 3	Civil initiatives = 3
	Public sector = 0	Public sector = 0
	Private sector = 5	Private sector **= 5**
Meat product 2	Civil initiatives = 1	Civil initiatives = 1
	Public sector = 0	Public sector = 0
	Private sector = 0	Private sector = 0
Bakery product 1	Civil initiatives = 0	Civil initiatives = 0
	Public sector = 5	Public sector = 5
	Private sector = 0	Private sector = 0
Bakery product 2	Civil initiatives = 0	Civil initiatives = 0
	Public sector = 2	Public sector = 1
	Private sector = 0	Private sector = 0
Dairy product 1	Civil initiatives = 3	Civil initiatives = 5
	Public sector = 5	Public sector = 5
	Private sector = 5	Private sector = 5
Dairy product 2	Civil initiatives = 1	Civil initiatives = 1
	Public sector = 3	Public sector = 3
	Private sector = 0	Private sector = 0
Dairy product 3	Civil initiatives = 0	Civil initiatives = 0
	Public sector = 3	Public sector = 3
	Private sector = 0	Private sector = 0
Cooked product	Civil initiatives = 1	Civil initiatives = 1
	Public sector = 3	Public sector = 3
	Private sector = 1	Private sector = 5
Product from fresh fruit	Civil initiatives = 1	Civil initiatives = 1
	Public sector = 5	Public sector = 1
	Private sector = 0	Private sector = 0
Dried fruit	Civil initiatives = 1	Civil initiatives = 1
	Public sector = 2	Public sector = 2
	Private sector = 0	Private sector = 0

As Table 4 indicates, the private sector is involved or has interest in three mountain food products (meat product 1, dairy product 1, cooked product); however, the pure PPP could only be recognised for two products (dairy product 1 and cooked product), while meat

product 1 in the private/civil partnership evinced a conditional PPP. For meat and dairy products, the involvement of the private sector in terms of both production and marketing has the same grade; however, for cooked products, the involvement of the private sector is more on the marketing side. Indeed, the interest of the private sector in the production process is very low, as shown in the results reported in Table 3. This outcome is reasonable if we consider that the product contains many ingredients with separate small productions (herbs, vegetable, meat, fungi, etc.). With regard to the interest of other sectors in production or marketing, we could conclude that the public sector is more involved in the production of bakery product 2 and fresh fruit for cider; otherwise, the involvement of the public sector is quite proportional between production and marketing sector. The civil sector is more involved in the marketing of dairy product 1; otherwise, its involvement is distributed between production and marketing. Among the partnerships, the public/civil type is most common (diary product 1, fresh fruit, dried fruit), followed by pure PPP and private/civil partnership (meat product 1). Furthermore, as regards the products where the public sector or public/civil partnership predominate both in terms of production and marketing, the supply chains are characterised as the face-to-face or/and spatial proximity type. Where the food chains are longer, for instance, in cases of the spatially extended type, the involvement of the private sector is present both in the production and marketing systems. An interesting finding is also that if the grade of sector involvement is low (e.g. meat product 2), a partnership is not evident (i.e. only one sector present), the assessment of the production is small to average and the marketing is deemed unsuccessful or partially successful.

Conclusion

The analysis of these mountain food products and food chains highlights one vital problem - the limited conditions for agriculture and, therefore, for high yield production, which further results in small quantities of food products. The results also reveal the low interest of all sectors recognised in these products, especially the private sector (only three products). The private sector, with partnerships with the public and/or civil sector, is involved with products with spatially extended SFSCs. Furthermore, from a broader perspective, these products arise from the tourism industry in the most developed areas; thus, different marketing opportunities exist. What is surprising is the lack of private interest is in these food products, irrespective of whether they have efficient production or marketing. Indeed, the civil sector is involved in seven of the examined products and the public sector, eight, with equal involvement in production and marketing.

Some of the products with no private interest also come from the same tourist region. The reasons for the lack of private interest are very diverse: from individual reasons (actors are not willing to collaborate, financial profit of individuals is in average low) to more sophisticated reasons connected to local policy, and last but not least, reasons connected to the special taste of these products (e.g. diary product 3).

In terms of the food chains, it was recognised that only one model of pure PPP exists, namely, the partnership between small local SMEs and LAGs via LEADER funds. Other PPP models are uncommon. Much more common are public-civil partnerships or

even a combination of all three sectors (public, private and civil). The results show that collaboration between more sectors and actors is also not indicative of the successful marketing of the product.

All analysed food products reveal face-to-face or spatial proximity supply chains and three food products, in addition to the spatially extended type of SFSC. Spatially extended means that the food products are sold in and outside of the region where they originate, in specialised shops, in highly ranked restaurants, at weekend markets in cities or at festivals. Only one product (dairy product 1) was found in supermarkets and mega markets around Slovenia, although seasonally. This is also the product with the highest production, with the greatest involvement of all three sectors, with a pure PPP model and where the private sector is interested in both the production and marketing of the product. It is interesting that no alternative market channels were identified (e.g. subscription farming, organisational collaboration, home delivered routes, sales online, roadside stands) for the analysed products, although these are not uncommon in the Slovenian mountains. In our opinion, the main reason for this is that the alternative market channels are not commonly linked to LEADER supported projects.

Returning to our findings, the most positive impact on the marketing and sale of the mountain food products could be recognised among the products with a high production, with the longest food chains and with pure PPP both in terms of production and marketing. There is one flaw in the study, however. The study was conducted only on mountain food products which are involved in the food linked projects managed by LAGs and supported by LEADER funds. To overcome this weakness, the study will be broadened in the future to include other mountain food products.

Acknowledgements

Results presented in this paper are obtained in frame of national research project in Slovenia with the title "Analysis and enhancing possibilities of public private partnership in marketing of local mountain food products" V4-1059 2010-2012.

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UDC 338.43:63 **ISSN 0352-3462**

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