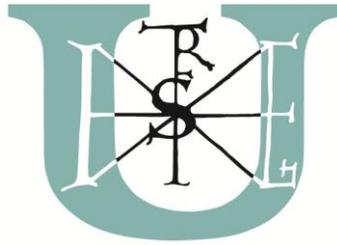


# **Doctoral dissertation summary**

**Kiss Konrad**

**Godollo**

**2020**



Szent István University

**The role of short food supply chains (SFSC) in  
conventional and producers' markets of the Budapest  
agglomeration area and Heves county**

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# 1. BACKGROUND AND OBJECTIVES OF THE DISSERTATION

Agriculture is traditionally considered one of the most important pillars of employment in rural areas. However, those who want to thrive as individual small-sized agricultural producers in today's food trade have to face severe difficulties. Due to global trade, small producers may be pushed out of the markets, and this can (also) have negative consequences for the economy of rural areas. In the developed, and in many developing countries of the World, the food market is concentrated, and overstocked. In Hungary, trade concentration developed after the „Regime Change,” with the spreading of large shopping centres, and the decreasing number of small producers. In the concentrated food trade, the most market shares are usually held by large retail chains. For small-scale farmers, who produce and sell individually, it is very difficult to become suppliers of these chain stores, because of size efficiency.

A possible alternative for small-sized producers is to sell through producers' cooperations, or so-called short supply chains (SSCs). Short supply chains are a supported EU priority in the current (2014-2020) budgetary period. According to the EU and domestic subsidy policies, those supply chains can be considered short” where the producers sell their products directly to consumers or at most by one intermediate operator. From a territorial and social perspective, „shortness” refers to the spatial proximity of production, processing, sales (and, according to some sources, consumption). Producers' marketplace, home sales, home delivery, „self-harvest” sales are examples for short supply chain sales or short food supply chain (SFSC) sales. Innovative methods such as „box-systems” or „community supported agriculture” can also be mentioned.

The topic of my dissertation is the multi-aspect study of short food chains. The sphere of concepts about short supply chains is vast. According to KIJÁNI (2014), short food chains refer to a narrower category within short supply chains. The main difference between the two concepts is that the short food supply chain includes the sale of handicraft products in addition to food.

Researchers examine the economic, social, environmental, and touristic impacts of short supply chains and short food supply chains. Their role in rural development and their ability to increase the income of participating producers and contribution to job creation also examined topics. Examining the literature of the subject, the reader may find many statements referring to how SSCs may be able to contribute to rural development, but in my experience, these statements

are often not supported by numerical data. The success of short supply chains and their role in rural development depend on the given situations.

## 1.1. Objectives and hypotheses

My primary motivation for writing my dissertation was to explore the main problems, and possible success factors of smallholders' sales. I assessed the efficiency and viability of the small producers' direct (SFSC) trade in two sample areas. They were the Budapest agglomeration, and the Mátra region (Heves county). Since the comprehensive evaluation of all SSC channels within one dissertation would be an impossible task, I focused my study on producers selling directly in different types of marketplaces. I chose marketplaces, because they are the most widespread producer sales channels nationwide. I did a survey with the contributions of small-sized producers. It was supplemented by an online study of the consumers' preference for small producers' goods. Mainly, the residents of the Northern Hungary region took part in this online survey.

The results compare the characteristics of marketplace sales in capital and countryside. Furthermore, I explore the typical problems of the small producers' trade, and formulate possible solutions to them. Considering the solution alternatives, I pay special attention to the effectiveness of the smallholders' marketing.

To conduct the research and to evaluate the results, I set up three hypotheses and three sub-hypotheses:

- **H1:** For SFSC-producers selling individually and directly, the Budapest region is a more profitable market (area) than the Gyöngyös region.
  - **H1.1:** Producers' marketplaces provide significantly better sales opportunities for producers than conventional marketplaces or market halls.
  - **H1.2:** In the case of the (profitable) markets of Budapest, producers are willing to undertake a road distance of up to 70 kilometers between the marketplace and their farm.
  - **H1.3:** Producers selling in the Budapest area are more professional, development-oriented, and more capable of developing than the responders of the examined rural area.
- **H2:** Marketing activities based on producer-consumer relationships and product promotion can provide an opportunity to advance in the small producers' direct sales.
- **H3:** Perceived good quality of local products has a positive influence on customers' willingness to pay, and may increase their monthly expenditures on producer' goods.

## **1.2. The „position” of short supply chains in the conceptual framework of trade**

To define the concept of supply chains, I used CHIKÁN's (2008, p. 181.) formulation, stating that supply chain means a vertically interconnected series of economic activities across corporate borders, aimed at satisfying a given consumer demand.

In my dissertation, I considered a supply chain a „short supply chain” if producers sell their products to end users either directly, or through a maximum one intermediate operator. This definition is based on the European Union subsidy policy (EU REGULATION 807/2014) and the Rural Development Program currently valid in Hungary (between 2014 and 2020) (VIDÉKFEJLESZTÉSI PROGRAM 2014-2020).

Another important approach in the definition of short supply chains is the spatial aspect. According to KNEAFSEY et al. (2013), for „local food systems” (where production, processing, sales, and consumption occur in a spatially defined proximity), the physical distance is typically between 20 and 100 kilometres. According to the Hungarian regulations (more precisely 52/2010 „FVM” decree on the conditions of food production and sale of small producers), this distance of small producer sales in Hungary can basically correspond to 40 kilometres, between the place of production and the location of the trade. (BENEDEK et al. 2014)

The 52/2010. decree applies a distance restriction for some of the products but allows the country's producers to sell in Budapest, and it also enables sales in the county of the production. The reason for the exception of Budapest is that the capital's share of the population and purchasing power is outstanding, so its exclusion from sales would seriously jeopardize the economic sustainability of the SSCs. (VIDÉKFEJLESZTÉSI PROGRAM 2014-2020).

## **1.3. Characteristics of producers selling in short supply chains and short food chains**

According to the report of the European Parliamentary Research Service (AUGÈRE-GRANIER 2016), there is a growing interest in short supply chains and local food marketplaces in all European countries, both in rural and urban areas, but their role in European food systems can be described as marginal.

Advantageous aspects of short supply chains are often associated with sustainability (SINI 2014, MASTRONARDI et al. 2015). However, some researchers are sceptical about the (general) optimism on SFSC channels, for example, that a closer relationship with consumers would always increase the producers' income.

According to proponents of SFSCs, local production is more sustainable than long supply chains, but this is less quantifiably substantiated. Disputed or debatable issues would be dangerous to accept as absolute truths (DEMARTINI 2017).

More international and Hungarian sources make known that short food supply chains (as main sales channels) are usually used by small-sized producers (LOW – VOGEL 2011, CHIFFOLEAU ET AL. 2016). There can be many motivational factors for producers to participate in short supply chains. From a financial perspective, the motivating factor for participation is independence and self-employment (FALGUIERES et al. 2015), and that they can sell at higher prices directly to customers, avoiding retail and wholesale (TUDISCA et al. 2015). In this way, a higher share is realized from the value (or customers' price) of the product. (LEVIDOW – PSARIKIDOU 2011). On the other hand, short supply chains allow producers to offer more added value and expand their variety of products. (AGUIAR et al. 2018). However, sales may (unfortunately) also take place out of the pressure of necessity, as a way of escaping commercial vulnerability from buyers (KALMÁRNÉ - VARGOVÁ 2010).

There may also be non-material motivational factors to participate in short supply chains, for example, preserving traditions, maintaining relationships with customers, protecting local values, or environmental reasons (such as sustainability or the protection of the natural or cultural environment.) (DUNAY et al. 2019).

It should be noted that although the reduction of the transported distances, or the number of participants may be able to increase the income of the producers in the short chain, this alone does not ensure long-term survival in the food market (SELLITTO et al. 2018).

#### **1.4. Consumers' perception of short supply chains and short food supply chains**

According to BENEDEK (2014), customers can be basically divided into two groups with opposing behaviours in terms of short supply chains. One group represents the (more significant) part of the consumers who buy mainly in traditional supply chains (e.g., retailers, hypermarkets, supermarkets, discount stores) and only occasionally in SSC channels. At the other side of the scale are consumers who are committed to SSC channels and. If they can, they are looking for direct sales opportunities. According to several consumer surveys, the affected customers identify local products with high quality (e.g., BALÁZS 2012). It is generally a common consumer opinion that SFSC products are fresh and healthy (e.g., BAKOS 2017) and therefore have the potential to contribute to the health of the end users.

However, it is difficult to empirically substantiate that local foods are universally superior to non-local or imported foods in terms of their impact on the environment or the health of consumers (EDWARDS-JONES 2010).

From the producers' perspective, perhaps the main criticism of producer sales is the high price level (e.g., TÓTH et al. 2017). There are several studies in the international and domestic literature that sought to assess buyers' interest in local products and their willingness to pay. For example, according to a Hungarian survey (DOGI et al. 2014), two-third of their respondents mentioned an extra price between 10 and 25%, as an amount they were willing to pay for handicraft products compared to conventional food.

One of the indisputable advantages of short supply chains and direct producers' sales that they can create connections between producers and consumers (AGUIAR et al. 2018). Mutual trust ensures maximum benefits for both the producers and consumers (TÓTH et al. 2017).

I examine the situation of producer sales in Hungary, primarily through the example of marketplaces. The GfK's data for 2016 indicates a decline in market sales between 2010 and 2016. In the near past, the share of marketplaces in the turnover of daily consumer goods has decreased from 5% (mentioned in the Hungarian Rural Development Programme 2014-2020) (VIDÉKFEJLESZTÉSI PROGRAM 2014-2020) to 3-4 percent (GfK. 2017). This information points to a decline in the sales opportunities of the small-sized agricultural producers.

## 2. MATERIAL AND METHOD

In the dissertation, I examined how satisfying for Hungarian small producers to participate in short food supply chains, selling directly to consumers. The following surveys and examinations were performed for the study:

- Synthesizing analysis of the literature on economic, environmental, and social sustainability of short supply chains, including consumer behaviour.
- Examination of the territorial concentration of the Hungarian marketplaces on the basis of secondary data.
- Doing exploratory primary research with 22 food producers trading in marketplaces and with a small-sized food-producing entrepreneurs. This research aimed to establish further primary survey with producers.
- Interviews with the leaders of seven producer organizations (POs). The aim of the research was to assess the POs' management relate to the membership (and whether it is worthwhile to sell to small producers through POs – as an alternative opportunity for sale).
- Quantitative primary research with 214 small producers selling in marketplaces. I made this survey in a total of 22 marketplaces, which are located within a 40-kilometer radius of Budapest and Gyöngyös. This survey aimed to explore the producers' satisfaction with the market sales and the diverse problems and solutions of small producers' sales.
- Quantitative online questionnaire survey with a total of 1034 consumers, mainly from the Northern Hungary Region. The research was under the lead of the Eszterházy Károly University, intending to examine consumer behaviour and food purchasing preferences, focusing on local products.

A total of 214 producers participated in the main quantitative survey, and this was the basis of my research. The respondents originated from the Budapest agglomeration and Heves county in a 2:1 ratio, from different types of marketplaces (Table 1.). I conducted the fieldwork in person, and it was a paper-based structured questionnaire survey. The questionnaire consisted mainly of closed and Liker-scale questions. The producers were able to talk about their problems and solution-suggestions in an open question.

*Table 1: Distribution of the producer sample by area and marketplace types*

<b>Sampling areas and examined market types</b>	<b>Number of locations</b>	<b>Number of responders</b>
Budapest area – conventional marketplaces, market halls	6	71
Budapest area– producers’ marketplaces (and one organic-sourced marketplace)	9	75
Gyöngyös area – traditional marketplaces	7	68

Source: own survey

I supplemented the producers’ survey with a general online survey, which was prepared within the framework of the EFOP-3.6.2-16-2017-00001 project led by the Eszterházy Károly University. As an employee, I played a significant role in the planning of the research, and I was deeply involved in approaching the responders. The elaboration and evaluation of the results presented in the dissertation is my exclusive work. The survey examines consumers’ shopping and food purchasing attitudes, habits, preferences, and willingness to pay for local products. Exploring the potential of small producers’ marketing activities was also in focus. According to the aims of the research, 86% of the responders originated from the territory of the Northern Hungary region.

I did not strive for representativeness in the research on either producer or consumer sides.

### **Employed statistical methods**

The results of the producers’ and consumers’ surveys were summarized and evaluated with Microsoft Excel and IBM SPSS statistical software. The following methods were used for comparative analyses:

- Chi-square test
- Cramer’s V association
- One-way analysis of variance (ANOVA)
- Pearson’s correlation

Calculations were performed using the 5% significance levels used widely in statistics. In some cases, I used factor analysis to reduce the number of variables and to „group” them. I also used cluster analyses to group the cases (respondents).

### **3. RESEARCH RESULTS**

#### **3.1. Examination of the concentration of Hungarian marketplaces**

Based on a previous register of Hungarian marketplaces (AKI 2012), it can be concluded, that in Budapest and Pest county (as in urban areas), significantly higher demand and supply was observed in 2012 for premium-price products and goods of producers' marketplaces, than in „rural areas” (non-metropolitan areas). This supports the assumption that the number of buyers with sufficient willingness and ability to pay in rural areas is unsatisfactory.

#### **3.2. Results of the exploratory research with producers**

According to the questionnaire survey made with 22 producers selling in marketplaces and with one small entrepreneur, producers considered the low number of customers in the marketplaces and the limited volume of saleable products to be the most critical factors. In order to improve the production and sales situation, most of them (7 people) emphasized the importance of marketing activities, which can be managed together with product promotion (four producers mentioned product quality as strength of small-producers' sales). Further, four mentions occurred about the importance of cooperation between producers.

#### **3.3. Opportunities for small farmers at producer organizations**

According to the leaders of seven producer organizations (POs), the POs did not discriminate against small producers on the basis of their sizes. The emphasis was on the size of the plant-sizes or the volume of supplied products but on reliability and compliance with the rules. It is likely that the amount of product, supplied by PO-members exceed the amount can be sold in SFSC channels, and therefore very small producers will not become PO members.

#### **3.4. Examining the satisfaction of producers selling in marketplaces in terms of location**

My primary research with producers basically had two goals. On the one hand, to assess how satisfied small producers are with different marketplaces as sales channels in the sample areas. To do this, I conducted a comparative spatial study. I compared producers' satisfaction with the various characteristics of the

marketplaces, as well as the judgment of their transportation costs. My other main goal was to explore the main problems affecting small producers selling directly and to identify possible solutions for them, based on the opinions of the producers.

In the study, nine producers' and six conventional marketplaces (including market halls) were located in the Budapest area, and seven conventional marketplaces were located in the Gyöngyös area. According to the results of my factor analysis, significant difference was observed mainly between the marketplace types and not merely between their location. I did not find statistically significant differences between the responses of producers from the conventional marketplaces (and market halls) from the two different areas. In this regard, there were no statistically significant differences between the Gyöngyös and Budapest area. In this way, area differences in the small producers' trade caused by the presence of producers' marketplaces. The differences were mainly due to responses on „additional, ancillary factors” (better accessibility, better parking opportunities, fees of rent stalling, services provided to vendors or producers). Furthermore, there were also significant differences between the „factors directly affecting profit” (like the number of customers, number of returning customers, the quantity of sold products, applicable consumers' prices.)

### **3.5. Examination of producers' transport costs**

Producers selling in the marketplaces of Budapest often have to undertake greater transport distances. (Table 2.)

I measured the transport distances with the „futás.net” website based on Google Maps. I uniformly calculated the distance of the fastest possible route alternative between the places of production and the (exact) addresses of the examined marketplaces.

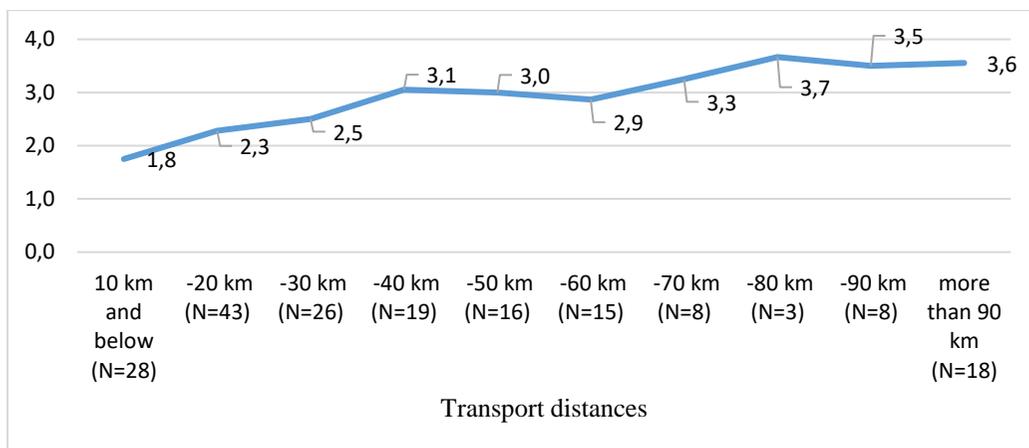
The transport distances were particularly long in the case of responders from producers' marketplaces, where 54% of responders came to marketplaces from more than 40 kilometres. This proportion was also high (40%) in the case of conventional marketplaces and market halls of the Budapest area. (It should be noted that these proportions also included marketplaces in the Budapest agglomeration, for example, the conventional marketplace of Szentendre or the producers' marketplace of Vác.)

**Table 2:** Producers' transport distances according to the places of the survey

Transport distance (only in one direction; calculated with the methodology I used)	Responders' sales locations		
	Budapest area – conventional marketplaces, market halls (n=66)	Budapest area– producers' marketplaces (and one organic- sourced marketplace) (n=69)	Gyöngyös area – traditional marketplaces (n=61)
sells locally	2%	6%	3%
under 10 km	9%	6%	33%
10,1-20 km	27%	14%	28%
21,1-40 km	23%	20%	28%
40,1-100 km	32%	38%	8%
more than 100 km	8%	16%	0%

Source: self-made based on own research

I asked the producers to rate how burdensome their transportation costs are for selling on the given marketplaces on a five-rank scale. (Figure 1.)



**Figure 1.:** Subjective assessments of transport costs (averages of answers on a 5-rank Likert-scale)\*

\*Legend for scaling of the „y” axis

1. Low, negligible cost;
2. Relatively low, but not negligible cost;
3. Medium cost;
4. Relatively high cost but pays off in the sales;
5. High cost, difficult to maintain in the long run, or not sustainable at all

Source: own survey

According to the opinions of the producers, an average cost of HUF 3720 could be attributed to the „already considered medium” transport distance of 30-40 km, in the case of one market day. The average cost of HUF 5860 related to the 60-70 km transport was also considered to be medium cost. It should be noted that these amounts are derived from rough, on the fly estimates of the producers. They refer to an order of size that is actual in 2018, regardless of the type of vehicle used for transportation and fuel prices that vary spatially and in time.

### **3.5. Examination of the development capacity of producers in areal comparison and regarding marketplace types**

The professional, development- and future-oriented small producers sold primarily in the Budapest region. As it turned out from the previous results, the differences in the areal location of the marketplaces are mainly caused by the fact that producers’ marketplaces were concentrated in the Budapest area, and higher producer satisfaction resulted from their characteristics.

I could decide who can be considered as „producers able to develop” from their objectives. I created four producer groups according to their plans:

**Group 1:** Producers who wanted to reduce the production, stop the farming or wanted to hand it down to the children (n=21);

**Group 2:** Producers who wanted to maintain the current state of farming (n=56);

**Group 3:** Producers who wanted to develop, grow or make other (positive) changes (n=87);

**Group 4:** Producers who did not answer the question or had no specific plans (n=49).

Most of the developing producers arose from the respondents of the producer’s marketplaces. Based on the survey, I judged 57% of the respondents in the producer marketplaces (and one eco-market) of the Budapest area to be able to develop. In contrast, the proportion of these producers in the conventional marketplaces and market halls of the Budapest area was only 34%, and 29% in the case of the Gyöngyös area (in conventional marketplaces). In another comparison, 49% of the producers able to develop originated from the producers’ marketplaces of the Budapest area. This survey confirmed my hypothesis that „producers selling in the Budapest area are more professional, development-oriented and more capable of developing than the responders of the examined rural area.” Furthermore, the results are related to my previous statement that there are no differences between the conventional marketplaces and market halls of the Budapest area and Gyöngyös area, regarding the producers’ satisfaction (and also their successfulness, according to the present survey.)

### **3.6. Producers opinions on small producers' sales (problems, solutions)**

With an open-ended question, I asked the producers to summarize the main problems in their small-scale trade. I also asked what solutions they see to these problems. I created 21 different response-groups from more than four hundred individual pieces of information.

Most of the suggestions referred to the role of the government, with a total of 71 opinions. The producers, for example, wanted subsidies that were optimized for their smaller farm-sizes and more easily accessible for them. They also wanted some changes in legislation. Problems with regulations in certain sectors (e.g., slaughter conditions) were also identified.

The second greatest group of suggestions – with 31 opinions – were aimed at the necessity of marketing activities based on product promotion and introducing the products. The experience of the literature review and the results of the consumer survey also show that consumers (mainly) prefer small producers' goods because they find that these goods have good quality. Non-material factors also play roles (for example, the need to purchase a local or domestic product, the need to support small local producers, the intention to be environmentally conscious). These characteristics and values must be communicated appropriately to consumers.

There was a further need for the creation of more and better sales opportunities and the infrastructural development of marketplaces. (According to others, it was necessary to coordinate and regulate the opening of marketplaces.) Other problems were, for example, the competition between producers and traders, labour shortages in the agricultural sector, inadequate buying and high input prices.

### **3.7. Consumers' preference for small producers' goods**

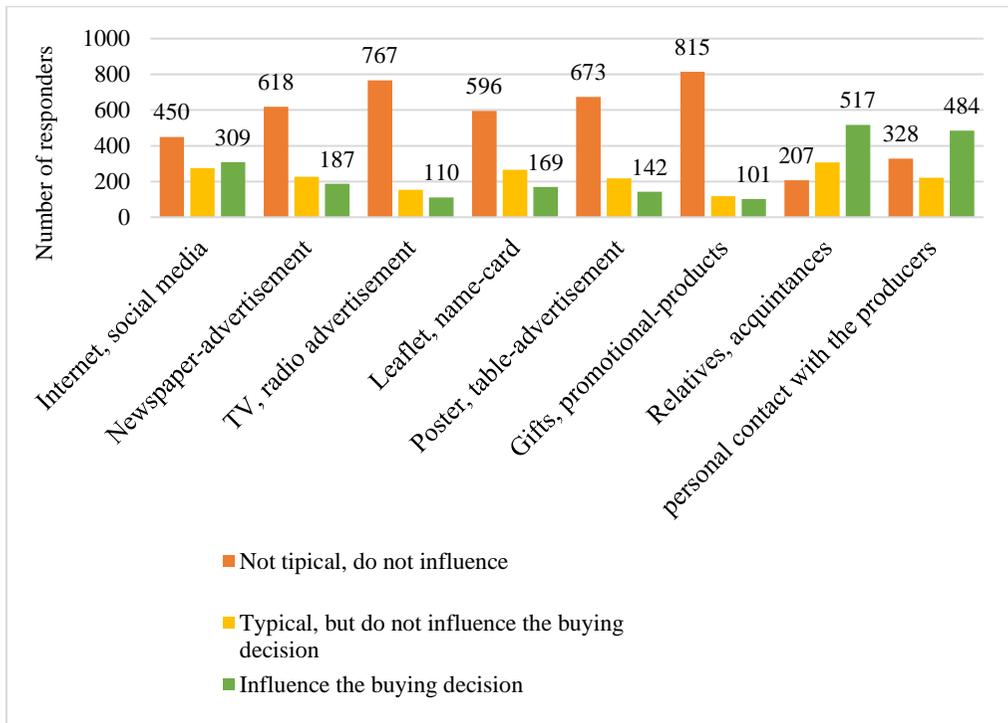
My results support the trend presented in the literature review (AUGERE-GRANIER 2016), that producers' sales played only a secondary role in the lives of consumers. One-third part of the responder consumers bought only up to HUF 5000 worth from local producers in an average month. A further third of them bought between 5000 and 10000 HUF. Only the remaining part of them had a significant demand, more than this. Statistically significant correlations were observed between the monthly expenditures on small producers' goods and the responders' highest education level, age and financial status. Perceived good quality characteristics of producers' goods also had an influencing effect on the preference.

In terms of age, the relationship was negative, meaning that younger responders spent less on these products. On average in the sample, consumers would pay a total of 20,7% more for small producers' goods than a product of the same quality made under industrial conditions.

Examining the preferences of product selection, it can also be concluded that although the price and quality were important for all groups, the consumer group most receptive to producers' goods was less price sensitive. In general, this consumers' group valued attributes like (Hungarian or local) producers of the wares, origin, quality of the products, and uniqueness. The pronounced susceptibility to organic products was not observed, but this factor was also the most important for consumers with higher monthly expenses. The influencing effect of personal relationships, environmental awareness, and family traditions was also most noticeable in the case of consumer groups preferring producers' goods. The significance of these differences was examined with Chi-square tests and Cramer's association. With the exception of the influencing effect of advertising, all of the examined factors were statistically significantly related to monthly expenditures on producers' goods. However, these relationships, except the demand for organic products, cannot be considered strong or decisive.

### **3.8. The impact of small producers' marketing on consumers' purchasing behaviour**

In my survey, nearly half of the responders felt that they did not have enough information about the supply of local producers. This is related to the statement of SZABÓ and JUHÁSZ (2012), which points to the lack of marketing activities on marketplaces. Lack of information can, of course, hinder or discourage consumers from purchasing, but on the other hand, justify the importance of marketing activities. Increasing marketing activities in itself is not a guarantee of income growth. The „effectiveness” of each marketing channel used by small producers' is very different. „Traditional” marketing methods like newspaper, television or radio advertisements, leaflets, posters, promotional gifts were the least effective, according to the survey. The most effective marketing channels were based on personal contact. They were the obtaining information from relatives and acquaintances, and direct contact with the producers themselves. (Figure 2.)



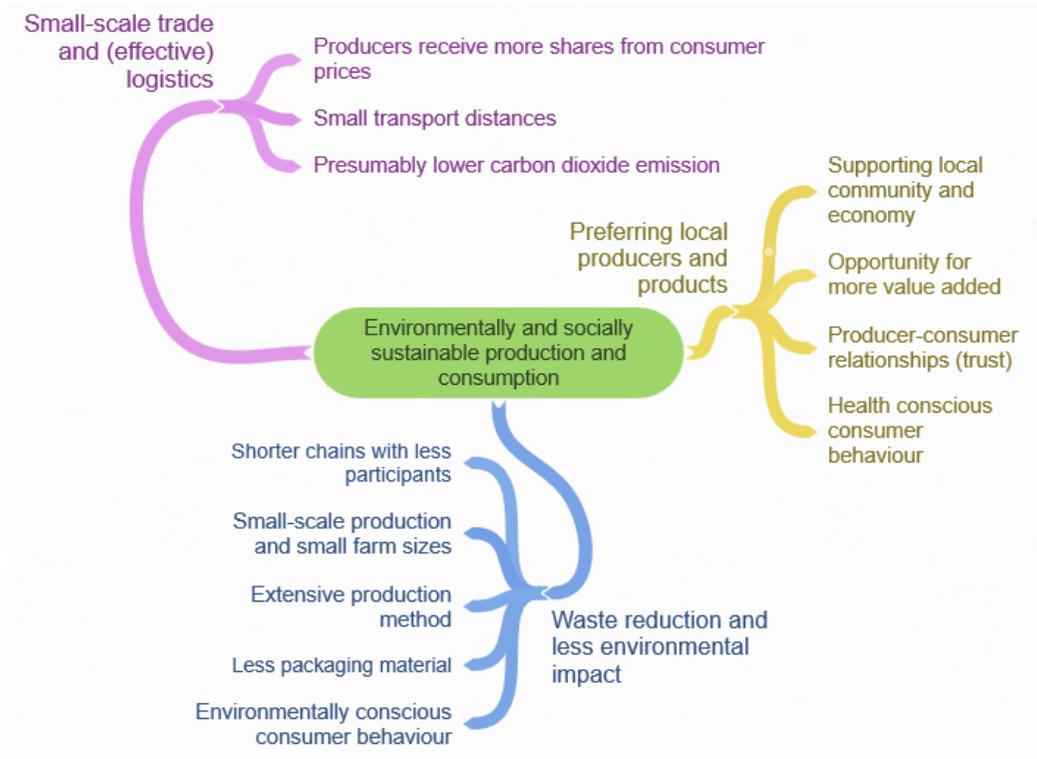
**Figure 2:** Consumers' perception of different marketing channels

Source: own survey

I examined the number and characteristics of consumer groups receptive to marketing, with factor and cluster analyses. The greatest cluster (of 581 responders) was least affected by small producers' marketing. They were characterized by greater price sensitivity, and they preferred producers' wares the least, and they purchase the least from small producers on a monthly basis. Three hundred fifty-eight consumers were receptive to marketing based on personal relationships. They were willing to pay an average of 23-25% premium for the goods of small producers, and most of them bought HUF 5 – 10 000 worth from producers in a month. From them, only 132 responders were susceptible to mass marketing channels as well; 226 consumers were almost exclusively affected only by personal marketing channels – according to my cluster analysis.

### 3.9. Examination of short supply chains from a sustainability perspective

Based on my experience from the literature review, I collected and systematized the aspects that can refer to the sustainability of (short) supply chains. (Figure 3.)



**Figure 3:** Possible positive features of short supply chains that support sustainability (and circular economy)

Source: self-made

The features presented in the model suggest that people’s wellbeing, (physical and mental) health is closely related to the state, cleanliness, pollution of their environment, the quality of consumed food, and their social status and relationship with their community. The basic goal of the circular economic model and sustainability is the moderate, considerate use of resources and, thus, the reduction of the environmental burden. Sustainability requires the right attitude on the part of producers; and the shift of consumers’ food purchasing decisions and habits towards sustainability. Such consumer behaviour may be, for example,

preferring products with low carbon footprint or low food-miles, or avoiding food waste and reducing waste generation.

These aspects can lead to the successful operation of SSCs in terms of sustainability, of course, in case of adequate economic efficiency and profitability.

### **3.10. New and novel scientific results and hypothesis examination**

In the course of my research, I formulated the following new and novel scientific results:

- 1.** In the examined sample, I found that producers are statistically significantly more satisfied with producers' marketplaces than with conventional marketplaces and market halls. This could be experienced in the evaluation of both the factors that determine the income (e.g., number of customers) and the examined additional factors (e.g., parking possibilities). (I do not consider the results to be representative.) Based on the result of May factor analysis, direct sales on marketplaces were more successful in areas where these producer marketplaces were able to function properly. In this respect, the Budapest area far surpassed the Gyöngyös area. There were no significant areal differences between the producers' assessments regarding marketplaces and market halls.
- 2.** Within the framework of my sample, I showed that for small producers, the transport distance of 30-70 kilometres was the „medium burden.” Transport from longer distances was considered extremely burdensome.
- 3** It was a statistically significant difference that most producers who had a willingness to develop, sold in the producers' marketplaces (and eco-market) in the Budapest area. In these producer marketplaces, I considered 57% of responders in the sample as „able to develop.” In contrast, their proportion in the conventional marketplaces and market halls of the Budapest area was only 34%, and 29% in the case of the Gyöngyös area (in conventional marketplaces).
- 4.** The most important marketing tool was personal contact with producers, in which product promotion plays a crucial role (for example, through participation in related programmes). Clusters responsive to marketing channels based on personal contact included one-third part of the sample's consumers. In their case, this receptiveness was coupled with a higher willingness to pay and also higher monthly expenditures on producers' goods. Based on this, the most effective marketing channel was the information receiving from producers and relatives. Furthermore, there was a statistically

significant correlation between consumers' willingness to pay and the good perceived quality characteristics of local products. The third most effective marketing channel was the internet and social media. In contrast, mass media marketing tools were found to be less effective.

5. I created a model to describe the state of a „sustainably functioning short supply chain.” It is based on literature research and systematizing the factors determining the economic, social, and environmental sustainability of short supply chains. It structures the features whose existence predicts the sustainability of a short supply chain from all the three main aspects.

**Based on the research, I present the results of the hypothesis examination below:**

**Table 3.:** Results of the hypothesis examination

<b>Hypothesis</b>	<b>Status</b>
<b>H1:</b> For SFSC-producers selling individually and directly, the Budapest region is a more profitable market (area) than the Gyöngyös region.	verified
<b>H1.1:</b> Producers' marketplaces provide significantly better sales opportunities for producers than conventional marketplaces or market halls.	verified
<b>H1.2:</b> In the case of the (profitable) markets of Budapest, producers are willing to undertake a road distance of up to 70 kilometres between the marketplace and their farm.	verified
<b>H1.3:</b> Producers selling in the Budapest area are more professional, development-oriented, and more capable of developing than the responders of the examined rural area.	verified
<b>H2:</b> Marketing activities based on producer-consumer relationships and product promotion can provide an opportunity to advance in the small producers' direct sales.	verified
<b>H3:</b> Perceived good quality of local products has a positive influence on customers' willingness to pay and may increase their monthly expenditures on producer' goods.	verified

Source: own edition

## 4. CONCLUSIONS, RECOMMENDATIONS

Examining the location of the marketplaces, I conclude that the rural shopping community is less able to sustain markets that use premium consumers' prices. I do not know about any research that specifically examines consumer demand for producers' marketplaces in rural areas, and we cannot get an answer to this question from my dissertation.

The small-sized producers surveyed in the producers' marketplaces of the Budapest area were statistically significantly more satisfied with their sales opportunities than the respondents in the market halls and traditional marketplaces, regardless of whether the traditional marketplaces or market halls were located in rural or capital sample areas. From this, it can be concluded that the areal differences in the producers' direct trade were due to the presence of producers' marketplaces. The lack of rural producers' marketplaces causes negative effects in the rural situation of SFSC (short food supply chain) sales. In the sample area of Budapest, 40% of the producers from marketplaces and market halls had a transport distance of more than 40 kilometres. Their proportion was 56% in the case of producers from the examined producers' marketplaces. According to my results (based on the calculation method I used), the maximum distance between the farm and the marketplace, which is still considered „medium” by small producers during transport, can be considered to be up to 70 kilometres.

*Below I summarize my suggestions for improving the SFSC sales of small producers based on my survey and the individual opinions of the producers:*

- If it is a determining factor in the creation of short food supply chains to establish SFSC outlets or trading points close to producers, then it is not recommended to exceed the transport distance of 70 kilometres. (Furthermore, it is advisable to keep in mind the restrictions of the Hungarian „FVM” – Ministry of Agriculture and Rural Development – Decree 52/2010).
- Infrastructural development of marketplaces and market halls, by providing the necessary (free of charge) parking opportunities and protection against adverse weather conditions.
- Coordinated establishment of new marketplaces and producers' marketplaces in line with the demand of the area.
- Collective (SFSC) sales by producers' cooperations.
- Carrying out marketing activities at the level of the individual producers and market leaders, as well as by the possible involvement of local governments.

The small producer profession is affected by very diverse, general, or sectorial problems, and in this way, the suggestions for solutions were also varied. It should be noted that the development of a correct, fair regulatory and support system is

the responsibility of the government. *My current proposals represent the interests of the small-sized producers' side:*

- Establishing optimized subsidies for small producers.
- Reducing the administrative burdens of producers.
- A need arose for the removal of the territorial restriction on small producers' sales.
- There was also a sector-specific need to relax the slaughter conditions and to tighten the requirements for beekeeping education (mainly because bee-health is a severe issue.)
- Subsidies that make agricultural careers more attractive, especially for the younger generation, have an essential role.
- Aid to reduce input costs primarily for producers with insufficient capital and intending to develop.

Regarding the problematic aspects of producer sales and possible solutions, most responses were received about the role of the government. The second most frequent suggestions for solutions were about the importance of marketing activities. These activities should be based on product promotion and awareness. The experience of the literature review and the results of the consumer survey also show that consumers (mainly) prefer small producers' goods because they consider them to be of good quality. According to the literature, non-material factors also play a role (for example, the need to buy local or domestic products, the need to support small local producers, the intention to be environmentally conscious). According to the results of an online consumer survey of more than 1000 responders, the most effective marketing tool was the personal contact with producers and information from relatives. The role of the internet and social media has also increased. Mass media (e.g. television or radio advertisements, leaflets and so on) proved to be the least effective channels. However, it is a fact that out of the 1034 surveyed consumers, 581 were minimally responsive to small producers' wares and were minimally influenced by the marketing associated with them. Their interest is difficult to motivate. They were least affected by the quality characteristics of small producers' goods.

In the marketing activities, product promotion has to play a vital role, because there was a statistically significant correlation between the perceived positive quality characteristics of small producers' goods and consumers' spending on and willingness to pay for local products. Although, based on the literature, the „superiority” of small producers' goods cannot be generalized in terms of product quality, it is a fact that if consumers consider local products to be of good quality and unique, this may increase their willingness to pay with a good chance.

*Regarding the marketing activities of small producers, the following suggestions were made:*

- Product promotion should be an essential element of small producers' marketing. Highlighting the beneficial characteristics of products (such as freshness, local origin, uniqueness and so on).
- I agree with the conclusions of BAKOS (2017) that marketing campaigns and programmes for youth and younger people can play an important role.
- I consider all initiatives reasonable and potentially useful in terms of increasing demand that have the potential to build trust and partnerships between producers and consumers. These initiatives do not have to be exclusively marketing motivated. Such event may be, for example, product exhibitions, cooking demonstrations, craft classes (in the frame of larger events, e.g., festivals, local programmes, or even organized on the farm), as well as the presentation of the farm or other cultural programme. These programmes should be promoted primarily through the internet and social media. Their central element is product promotion, but it is also worthwhile to use elements that can arouse the interest of young people (adolescents, twenties).

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