

**SZENT ISTVÁN  
EGYETEM**

**EXAMINATION OF FARMERS' MARKETS FROM  
MARKET ORGANISER, PRODUCER AND CONSUMER  
PERSPECTIVE**

**Theses of the PhD dissertation**

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# 1. THE BACKGROUND OF THE STUDY AND STUDY OBJECTIVES

In the past 5-10 years in the member countries of the European Union, such as in Hungary as well, there has been a growing consumer demand for the goods of the direct producers or that of marketed exclusively by one mediator. The producer and consumer participation in the Short Food Supply Chain (SFSC), beside the fact that it can ensure more beneficial bargaining power for the farmers as opposed to the global supply systems, it also generates social and environmental benefits.

The significance of the subjects justified by the fact that primarily in the field of rural development, programs subsidizing the progress of SFSC have been available since 2007. In addition, the rural development policy of the European Union applied for the duration of 2014-2020, put greater emphasis than ever before on the improvement of the Short Food Supply Chains; furthermore, it has provided the exact definition – ‘Short Food Supply Chain’ – of the concept for the first time. Besides, in Hungary, not only has the professional policy paid special attention to the preference of the Short Food Supply Chains, but also numerous civil initiatives have already taken place in favour of the support of the SFSC.

Based on the international and domestic literature available, it is vital that we emphasize that with the current competence of the producers, the consumer demand and the conditions regulated by law and the authorities, considering the opportunities, the farmers in the Short Food Supply Chains reach fewer consumers, entail food safety hazard and hardly ensure the prosperity of the law-abiding food-producer. All the above raises the attention to the fact that a lot is left to be desired in order that the share of short supply channels could grow as part of the overall supply channels.

My choice of the subject matter was influenced by the current domestic, social and political openness towards the short supply channels, as well as the wide array of the research opportunities stemming from the lack of the relevant database and scientific work, and it was also a challenge how I, as a sociologist, can integrate the study of sociology into research related to agricultural economy. During the six years of my research work in the domain of the SFSC, I have experienced how versatile the subject matter is, since, besides the outstanding importance of the economic, social and environmental relevance, the study of the participants’ perspective and motivation in the SFSC is an exciting task as well, where I was able to utilise the knowledge related to my qualification to the utmost.

I opted for the farmers’ market out of the types of Short Food Supply Chains as the theme of my thesis. The reason why I have considered the study of the topic to be of great importance is that the farmers traditionally use the local markets as the most frequent type of the short chain supply, although, on the one hand, the information available about the farmers’ markets is rather insufficient, on the other, not only does this type of supply chain receive more attention both on the level of the consumers and farmers as well as on the level of the society in Hungary, but it is also the case in the European Union. All the above is corroborated by the fact that in Hungary since 2012 the prerequisites for opening farmers’ markets have been facilitated, which, with both the farmers and the consumers’ growing interest, resulted in the increase of the number of the farmers’ markets from 112 to 237 between 2012 and 2016. Nonetheless, we have no data at all on the number of the markets that have been shut down, or the range of produce and customer cycle the functioning ones have.

Based on my experience gathered so far, I defined three main directions of study so that we can gain a more comprehensive picture than the ones available up to date. Firstly, I conducted the examination of farmers’ and traditional markets both on county and local settlement level, which analysis had been unavailable in the related domestic studies. Secondly, I focused on the examination of the selection of the locale and the elaboration of a type of multi-dimensional criteria assisting the selection of the location. Finally, I performed the investigation of the motivation,

attitudes and satisfaction of the farmers' market organisers, producers and consumers with regards to the farmers' markets and I drew the comparison of the result of our previous research.

The controlling idea of my scrutiny is to study the registered farmers' markets and the market management, farmers and consumers' opinions, attitudes, habits and peculiarities related both to the markets and the products. Furthermore, to display how the state of the farmers' market has changed in Hungary on the farmers, consumers and market management's part, based on the results of our previous study between 2011 and 2016, and what is the role of this channel in the domestic supply chain. Among my objectives is to present, with the aid of secondary analysis of the research results and database available, how the farmers' markets have evolved in number and in regional distribution; in addition, the available outcome of a methodology devised for the location preference of the farmers' markets. My further goal is to display, with the processing of primary and secondary data and with the application of multivariate statistics analysis among the market management, the characteristics of the farmers' markets operation and the discernible differences in the managing strategies. I demonstrate the particularity of the farmers trading on the Hungarian farmers' markets and the types of the supply chains they use as well as the characteristics of the trading on the farmers' markets. Simultaneously, I assess the traits of the food purchase practices and that of the product preference attitudes. Additionally, I define the clusters evolved along the attitude traits and the discretion of the markets. Lastly, I examine the expectations and experiences as to the farmers' markets in all the three groups in a comparable manner.

I propose the following hypotheses based on the relevant literature and my research and experience in the subject:

From the market organisers' perspective:

H1: The launch of the farmers' markets is not the result of deliberate planning.

H2: High added value products entered the range of products in the farmers' markets.

From the farmers' perspective:

H3: The farmers trading in the farmers' markets typically do not diversify their activity, they use no, or only few, other supply channels to sell their goods.

H4: The producers trading on the farmers' markets typically do not possess enough information about the consumers' needs and expectations.

From the consumer's point of view:

H5: One of the most determinative element of the demand for the products of the farmers' markets is trust, whose cornerstone is the sufficient information received about both the farmers and their goods.

H6: The socio-demographic profile of the consumer group loyal towards the farmers' produce has not altered during the past five years.

With my research, first and foremost, I would like to support the decision-making of those who organise, operate the farmers' markets and that of the farmers trading in them. Nevertheless, the results of the study can provide, besides the local council administration and the ones working in the field of the rural development, the consumers with useful information. I considered of great importance that I contribute to the long-run sustainability of the farmers' markets, by examining the necessary requirements for successfully operating markets, and the that of the existing or potential target groups open to the farmers' products.

## 2. DATA AND METHODS

The core of the analyses of the farmers' market research was supplied by the database of the traditional (vendor) and the local farmers' markets, which is recorded by the National Food Chain Safety Office (NFCSO), based on the data provided by the counties. The classification of the local markets was performed according to the registered markets complying with the regulation 51/2012 of the Ministry of Agriculture and Rural Development (MARD). It is crucial to remark that even among the markets registered as 'traditional' ones, in some of them, the market organisers allow the trade exclusively for growers. In conclusion, the list drawn up by NFCSO is not complete as to the farmers' markets. According to the data retrieved in February 2017, there were 249 farmers' markets as opposed to 392 traditional ones in the database. The gathered figures were compared against the NFCSO data of December 2015 and where I encountered deviation, I investigated the consistency of the information. Additionally, I came across records according to which the very market was registered both as traditional and farmers' market concurrently. Thus, I filtered out the ones which ensure producer trading, albeit they function as traditional markets. Furthermore, I excluded the fairs and livestock market organised once a month or less since these forms of supply were not included in my research. As a result, I identified 237 farmers' markets, including 12 markets selling organic goods en mass, relying on the database of HCA (Hungarian Chamber of Agriculture) and NFCSO. The number of the traditional markets came to 374.

Utilising the data on county and community level, I examined the location and the diversity of the number of farmers' markets showing on county and community level, and whether this relates to the population and the number of farms and their occupation. For the analysis, I made correlation calculation and variance analysis with the aid of the SPSS software programme while the geographic chart display of the data was performed with the use of the Geomarket online map editor programme.<sup>1</sup> The examination of the requirements for the farmers' market location was based on a research conducted in the US. The adaptation experiment to apply that method to our domestic environment was carried out with the assistance of an expert group. Peters, Matthew (2008) devised a toolkit based on his research in the State of Washington which focuses on the measurability of the location selection of the markets, in particular. Although the methodology applied is still under development, the summation of the scoring determined with the involvement of an expert group, the percentage distribution of the summation correlated to the total aggregate, and correspondingly, the weighting of the aspects and the results are presented in the study.

For the research in the circle of producers and consumers, on the one hand, I used secondary data: on-line and paper-based survey involving 202 producers and 851 consumers conducted during 2011 by the department of Food Chain Research of the Research Institute of Agriculture Economics (RIAE).

Due to lack of financial resources, I performed the primary data collection exclusively in the form of online questionnaires among the producers, the market management and the consumers between August 2016 and February 2017. I applied the List-based sample method within the probability sampling approaches to producers' survey. In that I was assisted by the Hungarian Chamber of Agriculture (HCA) which distributed the questionnaire link available on the website of the RIAE among its members. In response to the request, 41 valid surveys came in. I applied the same method with the market management. Exploiting the management contacts available on the website of the RIAE, I reached 232 market managers in total via email, of which 47 respondents filled in valid surveys. During the consumer surveys, I used the unrestricted self-selected surveys within the non-probability selection methods. 283 participants took part in the consumer survey.

To interpret the results, I applied the methods of crosstab, principal component and cluster analysis, correlation calculation and variance analysis with the aid of the SPSS 19.0 programme.

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<sup>1</sup> [www.online.geomarket.hu](http://www.online.geomarket.hu)

Since both the producers and the market managers participating were low in number, additionally, the representativeness of the samples was not ensured as for the Hungarian producers, or the Hungarian adult population, the significance tests and the indicators representing the strength of relations between the variables are to be interpreted with misgivings.

Apart from the usual analytic techniques, I also investigated the service-quality standard of the markets using the data from the surveys of all the three groups, with the application of the SERVQUAL (*SERVICE QUALITY*) model. We used this model for the first time in the study regarding the marketplaces, published in 2013. The current research presented me with the opportunity of comparing the results of the data collection on the two different occasions in time, along with the examination of the producers, market management and consumers' opinion. In order to construct the model, I requested the market managers, the producers and the consumers who took part in the survey to evaluate, in total, 24 factors in relation to the goods, the services provided and the conveniences in the farmers' markets, as well as the circumstances of the operation and environment of the market. I carried out the evaluation form two aspects. On the one hand, I examined how important the ones surveyed consider the requirements (expectations) listed for the successful operation of the farmers' markets, then, how much they consider it true (experience) as for the market they manage, sell in or purchase. The evaluation was made with the means of a 5-degree scale: score 1 meaning that the statement is not important at all as far as the local markets are considered, or not true at all about the market in question; score 5 signifies that the participants regard the aspect examined as vital for the long-term running of the farmers' markets, or they hold it utterly true based on their experience.

In the present study, I did not conduct quality research, although, during the evaluation of the quantitative results and the conclusion drawing, I implemented the experience gained through the personal consultation both with the producers and the managers in the past years.

### **3. STUDY RESULTS**

#### **3.1. The characteristics of the farmers markets in Hungary**

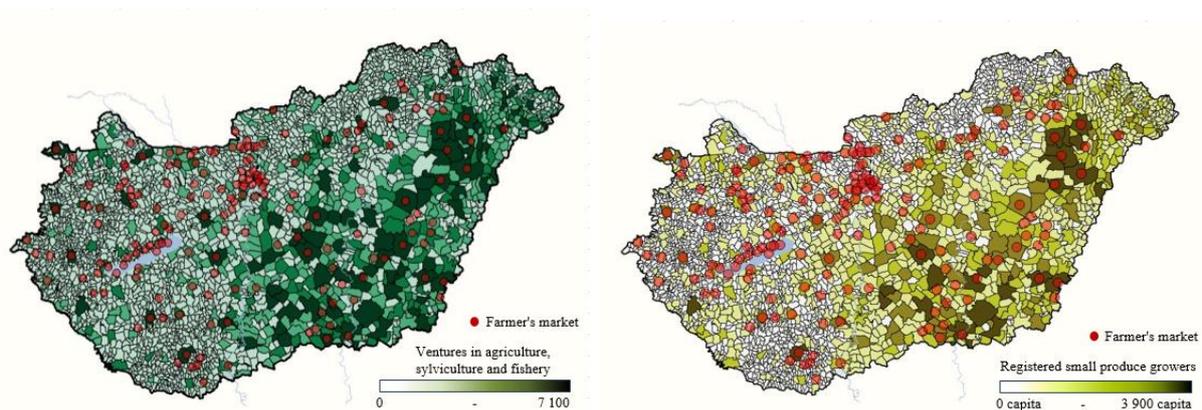
Looking into the progress of the markets in figures and the distribution of the farmers' and vendor markets out of the markets in total, the conclusion is that while in 2012 there were 118 functioning markets registered as farmers' markets, in 2013 there were 171, in 2014 it was 201, and in 2015 there were already 265. However, as opposed to the number of the farmers' markets, that of the traditional markets has barely changed, their proportion grew dynamically out of the total number of all types of markets. In 2012 the proportion of the farmers' markets covered merely 26%, which percentage – with the constant increase – reached as much as 42 % by the end of 2015. The tendency of 2015 seems to change based on data of 2016. Although the total number of markets hardly changed compared to the previous year, considering the share of the market types, beside the decrease fall in number of the farmers' markets, the growth of the traditional markets can be observed as opposed to the period 2012-2015.

The exploration of the cause would require a separate study, but it is presumable that more markets registered as 'farmers' continued to operate as vendor markets – if the circumstances allowed – ensuring the expansion of their product range, hence in this case the trading is restricted exclusively to farmers.

On county level, the greatest number of both types of markets were to be found in Budapest: 28 farmers' and 44 vendors' market operate in the capital city according to the data of year of 2016. At the same time, the fifth most residents (62 836) per just one farmers' market and the most residents (24 436) per all the markets are detected out of all the counties in Hungary. Besides the capital city, a significant number of farmers' markets operated in Komárom-Esztergom, Veszprém and Pest counties; these regions topped the list with 22, 21, 20 farmers' markets respectively, and

in Komárom-Esztergom county there was only 1 traditional market in 2016. In total, 40% of the farmers' markets are located in the first four counties mentioned above. The percentage of population per market of Pest county agrees with that of the capital city, as opposed to Komárom-Esztergom and Veszprém counties, where there were fewer residents per farmers' market in the year in question. As for the farmers' markets, the consumers had the opportunity to choose from 3 in Jász-Nagykun Szolnok, 3 in Nógrád county, 4 in Hajdú-Bihar county, while 4 in Tolna county in 2016. In this group, the capita per market was also high, with an exception of Jász-Nagykun-Szolnok, where the number of residents per market was the third lowest among the counties (10 752 capita)

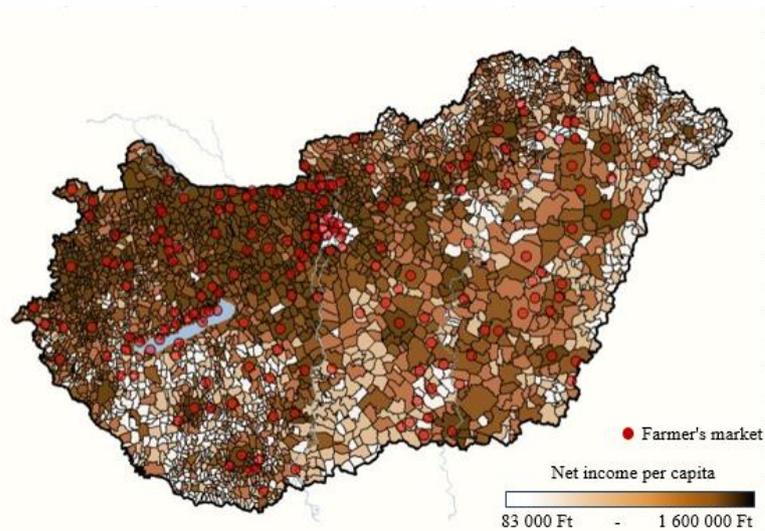
On settlement level, first, I have studied the number of agricultural enterprises and that of the small produce growers compared to the location of the farmers' markets. It is not surprising, that the location of the agricultural enterprises and the farmers' markets show a most similar pattern: in both cases the agricultural activity is the most intensive in the south and north Alföld regions. As it is observable with the county-level cause-and-effect analysis, the settlement level data showed the same result that is, the number of the farmers' markets do not necessarily overlap with the region where the small farm food production typically occur. In the case of the small produce growers, Szabolcs-Szatmár and Jász-Nagykun-Szolnok counties are the ones, which do not have or barely have farmers' markets in a 40-km range, but at the same time the number of the registered farmers is higher compared to other regions of the country. As a result, they have fewer opportunities to exploit this kind of supply channels. (Figure 1)



**Figure 1: Number of registered ventures in agricultural branches (left), number of registered small produce growers (right) in addition to the locations of farmers' markets**

Source: Author's own editing based on the data of the NISRDAM via the domestic statistics of the Hungarian Central Statistical Office (2015), the NFCSO (2016) and the HCA (2016)

Figure 2 displays the income of the Hungarian population per capita and the location of the farmers' markets. The map also confirms the outcome of the county-level analysis: the majority of farmers' markets is located either in the settlements or in their vicinity where the income per capita of the residents is higher. Accordingly, the higher the income is, the denser the farmers' markets dispersion is in Mid-Hungary and Mid-Dunántúl, as well as in the bigger cities and in their proximity (e.g., in Pécs, Szeged, Debrecen, Kecskemét, Kaposvár). The same applies to the easily accessible areas (e.g., along M3 motorway). Notwithstanding, there are only few markets in the West-Dunántúl region (mostly in the west part of Vas county) despite the high-income rate.



**Figure 2: Net income per capita and the locations of farmers' markets**

Source: Author's own editing based on the data of the NISRDAM via the domestic statistics of the Hungarian Central Statistical Office (2015), the NFCSO (2016) and the HCA (2016)

According to the results of the variance analysis, the average value of the variables examined indicated a significant divergence between the settlements with farmers' or traditional markets and the ones where this form of functioning direct supply channel was not available. Apart from the variables discussed above, I involved the population of the settlements into the analysis. On the other hand, the statistics referring to the capital city and the number of the markets operating in Budapest were excluded during the analysis so as the results do not distort.

The 209 markets left were located on 172 settlements in 2016, in which towns and villages the average population came to 16 148 residents, while in those where no farmers' market functioned, the value was merely 1 780 residents according to the database of NISRDAM (National Information System of Regional Development and Area Management) The net income per capita of the two types of settlements also diverged: the average income per capita was more than 740 000 Ft in the settlements with local markets, while in the ones without local markets, the corresponding number was barely 600 000 Ft per capita according to the data available. Despite the fact that the number of agricultural enterprises and that of the small produce growers did not show distinct correlation with the number of local markets according to the study presented so far, the variance analysis conducted on habitation-level presented a significant result regarding the connection of those two variables.

Reviewing the outcome of the regional-level investigation, it is apparent that the examination of this field brought exciting revelations to light. The analyses regarding the farmers' markets to date were lacking in the methodological study discussed in this chapter.

### **3.2. Criteria for the selection of the location of the domestic farmers' markets**

The examination of the location selection was based on Peters, Matthew (2008) survey conducted in the State of Washington whose adaptation was examined with the involvement of experts taking the domestic conditions and demands into account. During our co-operation, we set up the following six categories for the location selection: location, accessibility parking conditions, arrangement, infrastructure, land use (Table 1). As starting point we used Peters' definitions, which the participants got acquainted with during the preliminary online evaluation.

The experts considered the most compelling expectation that of the parking conditions with an average value of 8.1. Second came the land use dimension (average: 7.7), then followed the pre-conditions for the location (average: 7.4). Fourth in the row were the conditions of the arrangement (average: 7.0) and the last requirements were the infrastructure (average: 6.9) and the accessibility with 6.6 on average consecutively. Examining the perspective of every participant separately, the

picture we get slightly differs from the average. According to the experts, the most important factor is the dimension of the land use from the market organisers' point of view with an average of 8,9, followed by the criteria for the parking conditions and the location. On the other hand, the least relevant requirement was the accessibility from the market organisers' perspective, which was Scored 6.5 by the experts. As far as the producers are considered, the aspect of greatest importance was the parking condition (average:8,9) as well as the land use, which includes the opening hours and the long-term sustainability of the markets, received an evaluation of similarly high importance/important factor (8,4). Alike the market organisers' viewpoint, the least important criterion was the accessibility from the producers' point of view with only 5.8 points. At the same time, according to the customers, this is the dimension of the highest significance, along with the parking conditions, as opposed to the infrastructure receiving the lowest grading.

**Table 1: The list of criteria examined by experts as to the location selection of farmers' markets**

Dimensions		Criteria
<b>I.</b>	<b>Location</b>	1. The distance to the nearest farmers' market
		2. The distance to the nearest retail centre
		3. The distance to the nearest community square (where many potential customers may go about)
		4. Discernibility of the market
		5. Population density
<b>II.</b>	<b>Accessibility</b>	1. Intensity of road traffic in the vicinity of the market
		2. Availability of public transportation facilities in the vicinity of the market
		3. Availability of bicycle storage at the market or in its vicinity
		4. Unhindered pedestrian traffic in the market and in its vicinity
<b>III.</b>	<b>Parking conditions</b>	1. Availability of free parking in the vicinity of the market
		2. Parking fee rates in the vicinity of the market
		3. Parking availability for the producers next to the market
<b>IV.</b>	<b>Arrangement</b>	1. Size of the market
		2. Arrangement of the market
		3. Steepness of the market area
		4. The highest possible amount of entrances to the market
		5. The highest possible ratio of covered areas in the market
		6. The highest possible ratio of shaded areas in the market
<b>V.</b>	<b>Infrastructure</b>	1. Availability of public lavatories in the market or in its vicinity
		2. Availability of electricity for the producers
		3. Availability of evening lighting
		4. Carpet of the market place
		5. Storage availability in the market for the organisers and producers
<b>VI.</b>	<b>Land use</b>	1. Rental fee of the market area
		2. The assurance of the long-term use of land for the market at the given location
		3. Availability (opening hours)

Source: Author's own editing based on Peters (2008)

Inspecting the criteria individually, the most crucial was the free parking in the vicinity of the venue, and then, it was the long-term sustainability of the farmers' market in the location in succession. One more critical factor proved to be the availability of lavatories, the rate of parking fee as well as the discernibility, size and the distance from other farmers' markets, the opening hours (availability) and the distance from the community squares took more than 4 percent share in the criteria. The storage space and bicycle parking were awarded with the lowest grade.

The experts considered different aspects relevant from the point of view of the three main participants. The most significant aspect of the market organisers was to grant the long-term land use in the location given followed by the assurance of the infrastructure (electricity, lavatories), the rent of the venue and the availability of parking, consecutively. Similarly formed the sequence of the weighting of the producers' viewpoint. That is, the leading criteria were the availability of lavatories, the convenience of parking facilities and the permanence of the market. As for the customers, the parking options, the public transport and the discernibility of the market came as most received the highest score. In addition, this group also considered the long-term functioning as essential.

It was stated as criticism of the requirements that the study of the population density is insufficient in order to assess the purchasing power, the examination of the demographic characteristic of the population is also inevitable. Consequently, a more refined survey is needed to estimate the number of the potential consumers, as opposed to the system presented by Peters. Accordingly, it is of paramount importance to study in more detail the potential supply of the market in terms of the producer density, product offer and the field of occupation of the suppliers. Moreover, the participants found that the survey is lacking in the more detailed study in a separate dimension of the solvent demand, which was considered as the most crucial aspect, owing to the fact that these are not independent from the selection of the markets' location.

During the assignment, all participants reached the consensus as to the significance of the viewpoints, as well as they agreed on the criteria, although absent from the North-American survey, bearing great importance in Hungary.

For the successful adaptation of the method, the next step was to develop the most suitable means of statistics in order to summarise the values defined by the experts to provide a precise reflection of the measured conditions. Additionally, it was necessary to find the statistical indicators which realise the consideration of the new criteria. Furthermore, to be able to provide a universally applicable tool, the exploration of the elements allowing the classification of the market locations according to their main characteristics (e.g., characteristics of the population, income, tourism, variety of commodities).

As an outcome of our research, we successfully developed the early form of a decision-making method, which definitely can increase the chance of the sustainability of the farmers' markets.

### **3.3. The results of the survey conducted with the market organisers**

In their survey, the market organisers evaluated the motivating factors of the market opening with the aid of a five-grade scale. Score one stood for the factor with the least importance, while score five marked the most crucial role in the commence of the market. Apart from the factors stipulated the respondents had the opportunity to provide the intense motivation factors in their individual case. The market organisers' main drive to open a local market was the emergence of the consumer demand (evaluation average: 4.5) as well as was their loyalty towards the local farmers (evaluation average: 4.4). In addition, the arrival of the producers' needs exceeded an average of 4. The assets of the market location were also perceived as of high importance (evaluation average: 3.9). The increase of their income, the change in the legal acts facilitating the opening of the markets, and the exploitation of the competitions funding the opening or the renovation were ranked as less significant with an evaluation average below 3, each.

Additional criteria mentioned were to influence positively the consumers towards the commitment to the fresh, domestic food products, to raise the attention to the potential job opportunity among the young and the unemployed, to grant the seasonal marketing and to populate a community space, as crucial factors of motivation.

Apart from the motivation factors of the market opening, I reviewed the importance of the role of each attribute in the location selection. In that case too, the participating market organisers assessed every condition with the aid of the five-grade scale, according to the previous conditions.

The respondents ranked as the most important attribute the neat and tidy environment with the evaluation average of 4.3. Next came the potential of the long-term co-operation, as well as the easy accessibility both by car and public transportation, which factors received 4.1 on average from the respondents. The organisation of community programs, optimal parking condition and the deployment of public utilities (electricity, potable water, sewer system, etc.) had merely an evaluation average of 4 among the attributes listed.

The participating market organisers considered the rental cost of the premises (evaluation average 2.7) as well as the distance from other retail stores and services the least crucial (evaluation average: 2.5), which presumes that the farmers' market organisers do not rely on the availability of products and services in the neighbouring area not sold in the market. The participants acknowledged as significant conditions not included in the list the environmental and touristic assets. Moreover, in two cases the venue was granted, hence there was no location selection, so the inquires bore no relevance.

The inevitable condition of the long-term sustainability of the farmers' market is the correlation of the quantity and quality of the supply with the needs of the demand. In order that the market organisers gain information concerning the particularities of the demand and the supply of the local market, a preliminary survey, in general, is essential in the region. Nevertheless, not even half of the participating managers (49%) gathered information about the characteristics of the consumers and the producers in the settlement (part of the settlement) and in the nearby area before the opening. Most of those who assessed the opportunities in the area of the market did it with questionnaires. Furthermore, taking part in professional forums, contacting professional organisations, conducting personal interviews also helped the organisers to gain the necessary knowledge.

In order to comprehend the array of goods in the local markets, I requested from the organisers to provide the total number of the stands the product types in question were sold. Figure 3 shows on how many stalls each product type is sold on average. It is not surprising that the most frequently marketed goods were fresh vegetables and fruit. Vegetables were marketed on 10 stands on average per market at the time of the study, while in the markets included in the survey there were 365 stalls where we could purchase these goods. In the case of fresh fruit, the average number of farmers were 6, in total this commodity was offered by 206 stands. The third group of products was the unprocessed and processed<sup>2</sup> fruit (canned fruit, jams, dried fruit, etc.) but these products were only sold on 3 stands on average and on 96 stands in the 36 farmers markets whose organisers responded to the survey. Dairy produce, eggs, unprocessed and processed vegetables (sauces, pickles, etc.) and meat stuff followed with 2.2-2.5 stalls per local market, 77-89 vendors in total. Typically, there are one to two vendors selling honey, beverages, offering dry pasta, sweets in

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<sup>2</sup> REGULATION (EC) No 852/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 Chapter 1, Article 2:

(b) "primary products" means products of primary production including products of the soil, of stock farming, of hunting and fishing;  
(n) "unprocessed products" means foodstuffs that have not undergone processing, and includes products that have been divided, parted, severed, sliced, boned, minced, skinned, ground, cut, cleaned, trimmed, husked, milled, chilled, frozen, deep-frozen or thawed;  
(o) "processed products" means foodstuffs resulting from the processing of unprocessed products. These products may contain ingredients that are necessary for their manufacture or to give them specific characteristics.

every market, while bakery stuffs, cooking fat (cooking oil, fat, margarine), alcoholic drinks, as well as fishery products were offered in every second or third market.

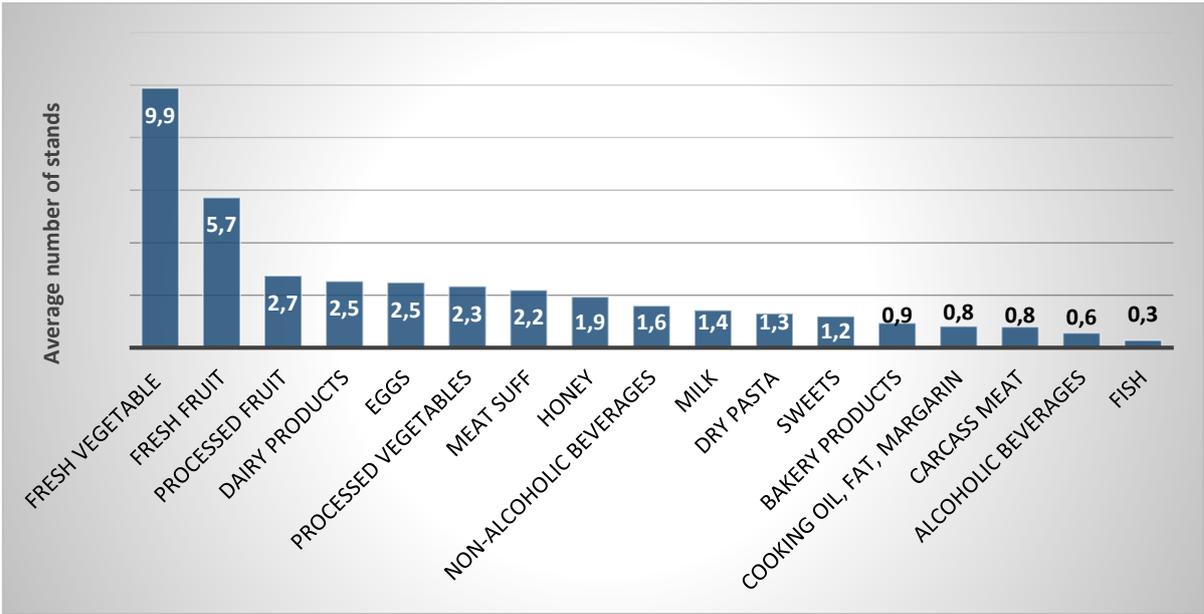


Figure 3: The average of stands per small farmers' market offering each category of goods (N=35)

Source: Author's own editing

The customer base is comprised from the local population, half of the respondents assumed that the customers visiting the market came from the settlement/the part of the settlement and from its neighbouring area. The rate of the non-local customers is the lowest in the winter season. On the other hand, there were five markets surveyed where more than half of the customers are not residents, in another 5 markets this rate is between 20-50 percent, in further 5 markets the maximum number of nonlocals comprises 20% out of the total number of customers.

During the analysis of the service quality of the markets assessed by the organisers, I studied the overall average values reified by the listed attributes and that of the four dimensions examined using the SERVQUAL model along the experiences and expectations criteria. All in all, the highest expectation was based on the goods of the farmers' markets, with a score of 4.6 out of 5. Next on the list was the convenience with 4.5 evaluation average, followed by the dimension regarding the conditions of the market with a score of 4.1. The provision of various services proved to be the least important attribute of all (evaluation average: 3.3).

The quality of the services constantly fell behind the expected rate along all the dimensions, the most (-0.4) in the field of conveniences, which is the area requiring the most urgent improvement according to the respondents to the market organisers' questionnaire. In the case of the rest of the dimensions the divergences corresponded (-0.2). As a result, the value of market organiser satisfaction is -0.23 according to the survey outcome. This result points out that the market organisers believe the potential of their markets is increasable with the development of some fields. Figure 4 displays the SERVQUAL model devised based on the viewpoint of the market management.

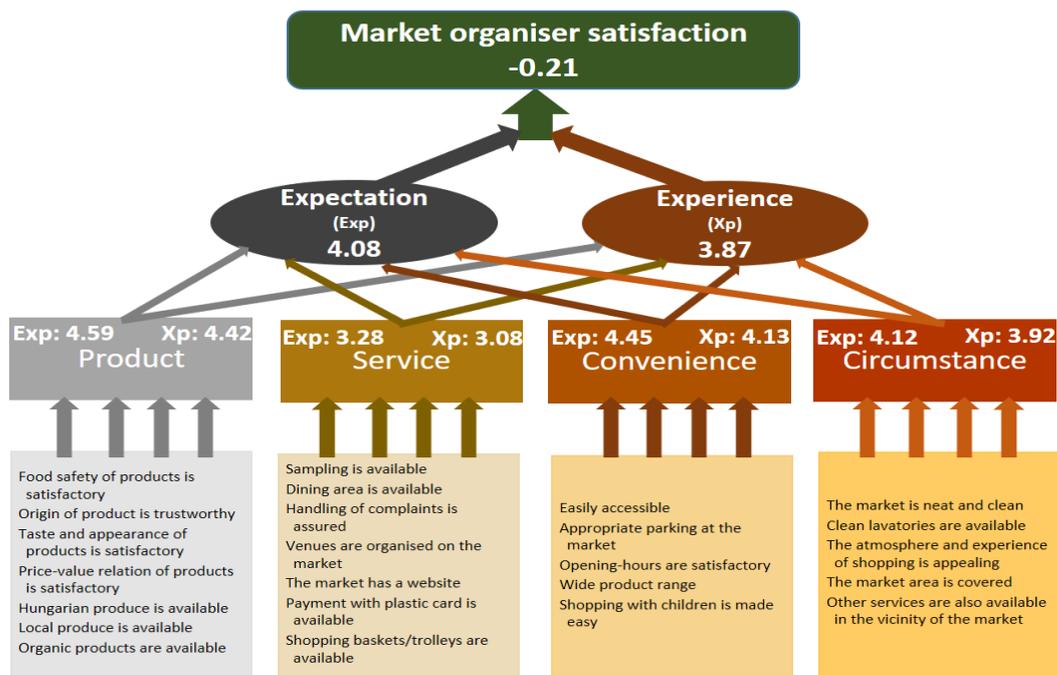


Figure 4: Evaluation averages of the dimensions in the SERVQUAL model from market organisers' perspective (N=37)

Source: Author's own editing

The questionnaire completed by the market organisers provided me with the opportunity, using the evaluation of the market-opening motivation and the location selection aspects, to attempt to arrange the organisers into clusters along the different market management strategies.

For the first group (15 persons) the financial criteria played an exclusive role in the organisation of the farmers' market in their area, the demands of the producers and consumers as well as supporting the marketing of the local products were not relevant to their decision making. Moreover, they did not consider the criteria of the location selection before opening their market. The second, and also the most populous cluster (22 persons) brought their decision of the market opening based on the exact opposite factors of the previous group: they were motivated by the aspects of the commitment towards the local community, additionally, they showed shrewdness and caution on selecting the location. The third group, comprised from merely 4 persons, was influenced by none of the drives mentioned in their decision to open the market. In addition, the condition of the location was not taken into consideration either, apparently, due to the fact that at the time of the opening, the conditions were given and the options limited. As a consequence, with the lack of the selection option, the criteria mentioned could not play a role.

As for the age, education of the respondents, the framework of the organisation and the area of the venue, the surveyed market organiser groups did not significantly differ. On the other hand, examining their views about the farmers' markets and their attitudes toward them, I could detect significant divergences among the clusters.

Based on the result, for those ranking the financial aspects as first priority, the criteria linked to the conditions (hygiene, neatness, pleasant atmosphere) were of the greatest significance, while the product characteristics were considered the least important regarding the local markets. This cluster evaluated the dimension of the services and conveniences slightly below the average. The group committed to the local needs and producers put greater emphasis on every dimension of the criteria surveyed than the other two clusters; they considered the aspects of customer convenience in the market determinative. The last group evaluated the product related expectations slightly higher than the average, apart from that, they did not consider any other dimension significant as for the functioning of the farmers' markets (Figure 5).

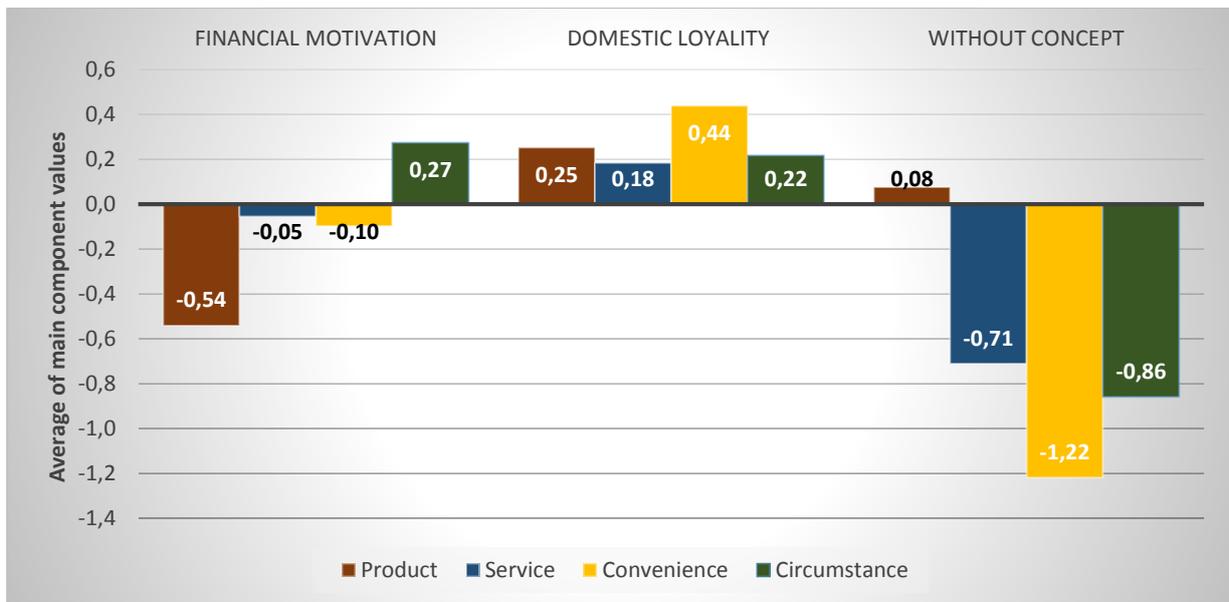


Figure 5: The average of the principal component values describing the small farmers markets' dimensions along the market organiser clusters (N=41)

Resource: Author's own editing

Concluding from the above survey and the study of the Research Institute of Agricultural Economics (RIAE), it can be asserted that the local councils take more and more significant role in the opening of the markets, which is attributed to the motivating power of the alleviated regulations, on the one hand, and on the other, it proves that the commitment of the settlement governors has grown.

### 3.4. The results of the survey conducted with the small small farmers

Despite the low inclination rate of participation, the creation of the producer SERQAL model provided me with the opportunity to compare the outcome of the present study with that of the 2011 study of the RIAE, and as reference, to apprehend the producers' opinion besides the consumers and the market organisers'. Since the marketing in the farmers' market reduced the circle, I omitted further analysis.

As the first step of this survey, I was interested in the reasons why the farmers who do not choose to sell their goods in the farmers' market avoid this supply channel, and whether the order of importance overlaps with that of the RIAE results 5 years ago.

Most of the 14 growers (8 respondents) do not participate in the farmers' markets due to the fact that the marketable quantity is small, in addition, 6 farmers provided the lack of capacity as the reason of not exploiting this opportunity and two of the producers never considered this option. Apart from these, each factor received one score. One respondent claimed the cause not included in the survey, that there is a lack of hygienic conditions to trade dairy produce. The results of RIAE and my survey correlated in terms of the most significant reasons for not participating: in both studies the mostly claimed causes were the limits regarding capacity and the quantity of the marketed goods.

After revealing the causes of the producers' absence, I studied the motivation for participating. The responding producers evaluated the factors listed with the aid of a five-grade scale; with score one meaning no influence in the participation in the farmers' market, while score 5 marking the most influential factor in the decision-making process (Table 2).

**Table 2: Score averages of and diversions from the 2011 RIAE evaluation of the motivating factors as to the producer participation on farmers' markets (1 = not influential at all – 5 = very influential, N=15)**

Criteria	Evaluation average	Dispersion	Diversion from the 2011 survey values
Need for direct consumer contact	4.14	0.949	0.37
Actual consumer demand	3.93	1.335	0.08
Marketing of exclusive quality produce	3.71	1.204	-0.06
Income increase	3.69	1.078	-0.62
Small amount of marketable produce	3.40	1.298	0.50
Reducing vulnerability against the middlemen	2.79	1.626	-1.12
Utilisation of capacity	2.73	0.961	-0.11
Idealism	2.43	1.742	-0.19
Losing ground in other types of supply channels	1.62	1.193	-1.72
Utilisation of funding	1.46	0.776	-0.22
Less tight food safety requirements	1.36	0.929	-0.33

Source: Author's own editing based on RIAE producer survey (2011) and own research

The average of the evaluation was compared with the corresponding survey results of RIAE and I presented the deviation of the norms based on the examined aspects. The most influential drive for the producers to start trading in the market was the need for the direct connection with the consumer, with an average of 4.1. This aspect was less motivating 5 years ago, coming fourth with a score of 3.8. According to the questionnaire of the last year, the second most important motivating factor was the adaption to the demand; the emergence of the actual consumer demand was evaluated with 3.9, exceeding the results of the previous survey with 0.08. Next came the opportunity of trading produce of exclusive quality, which was a less influential cause for the farmers to sell their foodstuffs than those responding in 2011, although the deviation was merely 0.06 points. The fourth place was occupied by the income increase, which was the motivating factor of the greatest concern in the previous survey. The last respect in my survey was exactly the one which was a deterrent for the farmers not choosing this direct type of supply chain, that is to say, the opportunity of trading small quantities of commodities. This criterion, similar to the preceding ones, was also of greater influence on the farmers in my survey than in the one of RIAE, in 2011. The drop in vulnerability against the middlemen held less significance for the producers to trade in the farmers' markets, while 5 years earlier, it was the second most important factor. The greatest difference showed in the evaluation of losing ground in other types of supply channels: while in 2011 it was evaluated with a score of 3.3, in 2016 the same value was scored with 1.6. The order of the criteria evaluated as the least significant corresponded to the outcome of the preceding survey, having lower average in my survey, though. The less tight food safety requirements and the utilisation of funding were considered least motivating factors as for the trading in the farmers' markets. The criteria not involved in the list were completed with two values of influence: those of the cost curb and the support of community life.

The producers in the farmers' markets sell mostly processed goods to the customers. The respondents listed 41 types or groups of products, out of which 17 were staple ones, mainly fresh vegetables and fruit, but farmers trading honey, eggs, and cow milk also took part in the survey. The number of unprocessed and processed foodstuff was 24 in total, including syrups, jams, pickles, cooking oil, smoked meat products and relishes.

The consumers of the farmers' markets consider the trust as a factor of importance, proven by the fact that the majority of the customers are regulars. The proportion was 52% on average among the respondents, but even the lowest value of the regulars reached 15% while the maximum is outstandingly high, with 80%. The results of the average, minimum and maximum of the regulars

corresponded to those of RIAE 2011 survey. The correlation calculation proved the more customers visit a producer the greater is the number of regulars.

To analyse the service quality evaluation provided by the farmers in the local markets, I re-applied the SERVQUAL model. Alike to the market organisers' opinion, the greatest expectation concerned the commodities, valued with 4.5 on the 5-grade scale. It was followed by the dimension of convenience with an average score of 4.4. Next was the aspect including the conditions and circumstances of the markets with 4.0. The least important respect of all was the provision of various services with a score of 3.0.

The quality of the services consecutively fell behind the expected value in three dimensions: to the greatest extent (-0.3) in terms of the products, which is the dimension requiring the most improvement according to farmers responding to the questionnaire. The criteria concerning the convenience received 0.2 less score than the farmers' expectations from the market while the evaluation of the aspects referring to the circumstances slightly differed along the expectations and the experience: the producers' impression fell behind the expected merely with 0.1. The farmers expressed their optimism as far as the services provided by the markets. In this case, they believed that the markets outdid the expectations, since, according to them, these conditions are of medium importance concerning the markets (average value: 3.0), whereas the fulfilment was valued with a score of 3.4. All things considered, the value of the producer satisfaction came to -0.03 according to the study, denoting that the farmers' markets require certain improvement in some dimensions to ensure long term sustainability, but in general they function in an orderly fashion. (Figure 6).

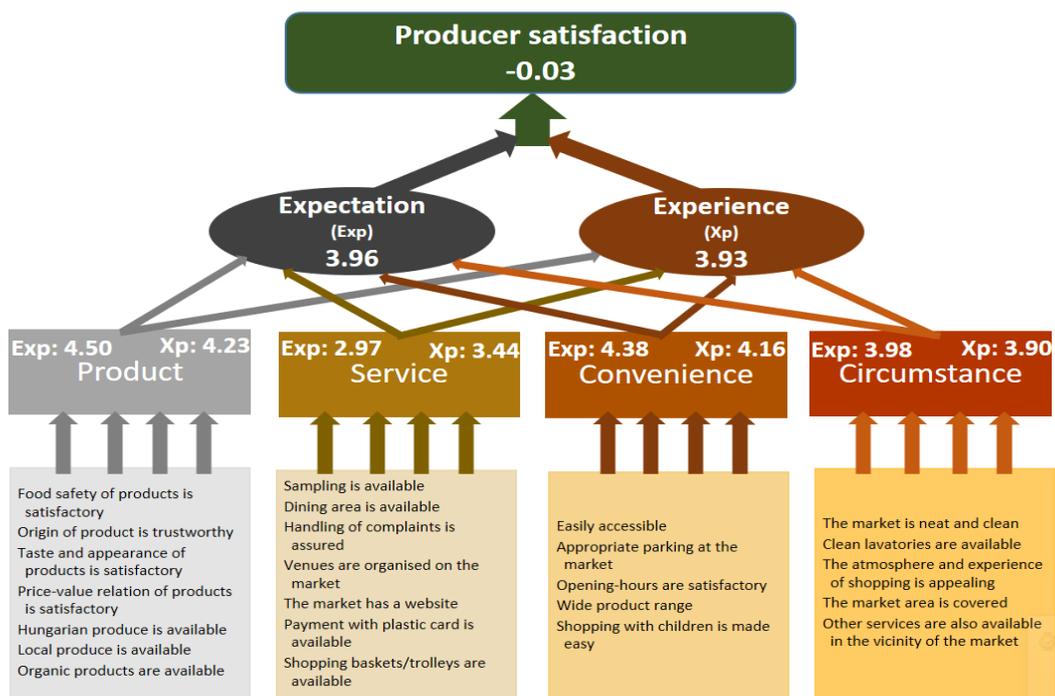


Figure 6: Evaluation averages of the dimensions in the SERVQUAL model from small produce growers' perspective

Source: Author's own editing

In the 2011 survey of RIAE, the farmers' expectations from the markets were not investigated, but the experience was collected concerning the very markets where the growers participating traded their goods. The listed aspects and dimension were the exact same as those of my 2016-survey, which were evaluated with the aid of a 5-grade scale, as a result, the data were comparable. Based on the producers' evaluation regarding the produce sold in the markets, the consideration of the dimension improved by 2016; the farmers evaluated these factors with +0.43 higher than the ones in 2011. In the field of the services provided the divergence was even more remarkable: the factors were graded nearly with an entire point higher in 2016 than in 2011. The aspects of convenience

and the criteria for the environment of the markets fell short compared to the figures of 2011: the former by -0.03, the latter by -0.14. Nonetheless, all in all, a positive change was detectable on the producers' side in the evaluation of the two researches (+0.26).

### **3.5. The results of the survey conducted with the consumers**

The consumer survey was not representative regarding the adult population of Hungary. The residents of the region of mid-Hungary, the ones with tertiary education, the middle-aged and the women were over-represented as for their proportion out of the total number of participants. Nevertheless, I consider the outcome of the data analysis relevant to the farmers' markets owing to the fact that the consumer groups with demographic characteristics mentioned comprise primarily the potential customer base of the local markets.

The 1.2 percent of the respondents do their weekly shopping almost on every occasion in the farmers' markets, in addition 12.5 percent claimed that they are regular visitors. A further 43 percent stated that they sometimes purchase goods in local markets, but numerous consumers (43.5%) took part in the survey who never visit these supply channels.

Analysing the assessment of consumers' attitude towards the goods, the respondents /consider dependability of the foodstuffs: aspects graded highest is the duration of consumability (average value: 4.4), the importance of provenience (average value: 4.1) and the significance of the standard ingredients of the international brands (average value: 4.0). Out of the statements concerning the Hungarian and the producers' goods, the only significant aspect was to benefit the domestic products, a with a 3.9 average value. The direct purchase from the producers, the organic products and the food safety of the goods in the local markets, the higher quality of the Hungarian products versus the imported ones, came in the second half of the ranking. It is to be emphasised that the least true statement that is, the inexpensive goods are not safe (average value 2.7), proves that the enforcement of food safety is taken for granted.

The data regarding the rate of participants that responded with the answer choice 'I don't know' also proved to be of great significance since it suggests that the respondents had insufficient information in order to adjudge the claim. This rate was over 10 percent in the case of the statements below:

- The products are more expensive in the farmers markets than in the bigger shops (19%)
- The organic products are safer than the non-conventional ones (18%)
- The safety control of the small produce is more difficult than that of the big producers (14%)
- I can purchase safer foodstuffs in the markets than in the big supplier shops (10%)

Each of the statements listed above indicates the extensive lack of consumer information about the small produce growers' goods.

In the local markets, 56 percent of the respondents purchase foodstuffs at least occasionally, 2 percent of whom do purchase even on several occasions a week, and 12 percent of them visit the farmers' markets on weekly basis. Additionally, the 19 and 23 percent of the surveyed choose this type of shopping several times a month and occasionally during a year. On the other hand, a 22 percent rate, although do not shop in the local farmers' markets, visit the traditional markets and market halls. The same percentage claim that they never purchase foodstuffs through these types of supply channels.

The most (13 persons) out of the 49 participants avoiding the markets named the inflexible opening hours as one of the deterring reasons. Next came the limited range of products and the time-consuming nature of the shopping process with 18 votes both.

The products purchased were traditionally mostly fresh vegetables and fruit according to the respondents' opinion, bought by 94 percent of the consumers at least occasionally. At the same

time, honey is purchased in the form of direct supply, 22.5 percent responded that they always purchase the various types of honey in the local market, and 76 percent does so occasionally. Based on the responses of 75 percent, eggs are also the staple product of the markets proven by the fact that the rate of regular buyers (17%) closed on the rate of those who almost always purchase fresh vegetables (18.5) and fruit (18%) from this source.

From the results of the research, we can conclude that, even if the farmers’ markets are not the venues of extended foodstuff shopping, a significant part of the respondents visit them at least occasionally to purchase definite goods. These goods are traditionally fresh vegetables, fruit and eggs but a remarkable demand for honey and processed food emerges. The ones not visiting the markets did not object the products at first instance, although this aspect also occurred, the main reasons why the consumers participating avoid this supply channel were the time-consuming and inconvenient shopping, as well as the narrow array of goods.

Based on the results of the SERVQUAL model, similar to the previously presented service quality examinations, the greatest expectation is tied to the produce itself (the average of the dimension value: 4.3). Next came the aspects of convenience with a 4.1 value average, the dimension including the circumstances of the market took the third place assessed with a value of 3.6. The least important attribute, in this case as well, proved to be the assurance of various services (value average: 2.5).

The consumer experience concerning the quality of the services fell behind the expected measure in 3 dimensions. The greatest deviation occurred between the expectations and the experiences in market organiser, producer and consumer survey likewise. In total, the assessment of the experiences was -0.5 lower than that given to the dimension of the expected aspects. In the case of the convenience factors the difference was -0.4, while in the dimension covering the local market circumstances, it came to -0.2. As well as the producers involved in the research, the consumers considered the quality of services available appropriate, the figurative value of the rate of satisfaction was +0.1. All things considered, in conclusion, the consumer satisfaction average was -0.23, which means that the local markets, despite the positive evaluation of the services, did not fulfil the level of the consumer expectation (Figure 7).

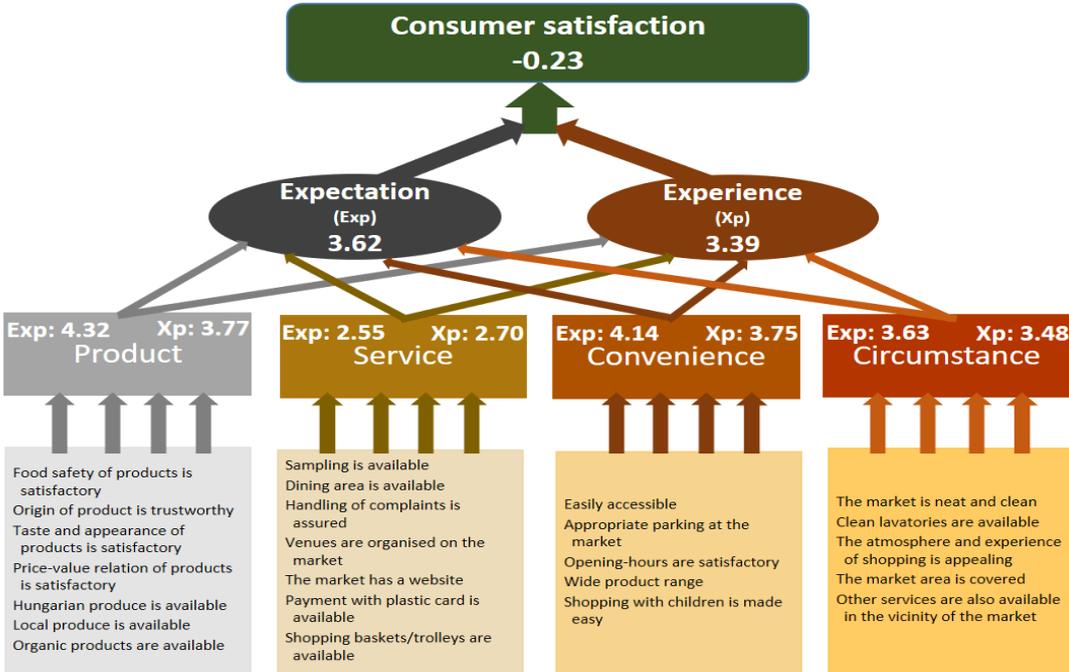


Figure 7: Evaluation averages of the dimensions in the SERVQUAL model from consumer perspective  
 Source: Author’s own editing

In the 2011 RIAE consumer research, we also conducted the examination of the service quality of the markets with the application of the very dimension and method, therefore, the data was comparable. The deviance between the expectations and experiences barely changed during the past 5 years; in both survey, the divergence was -0.5 between the average of the two evaluations. Similar to the producer evaluation, the satisfaction towards the services provided by the markets turned into a positive direction (+0.41), despite the fact, that the participants' expectations were higher in the 2016 survey than the values provided by the respondents of the 2011 survey. The expectations also grew regarding the criteria of the convenience, but in this case, the rate of satisfaction expressed in figures dropped: while in 2011 the consumer satisfaction regarding the convenience dimension was -0.11, in 2016 this rate reached -0.39. The evaluation of the circumstances/environment of the markets did not change significantly either on the side of expectations or that of the experiences. Additionally, the alteration of the consumer satisfaction came close to zero (-0.01). In total, however minimal the difference is, it went into positive direction between the two points in the terms studied (+0.03).

Upon analysing the attitude variants designed for the shopping and the products in the consumer questionnaire, it was feasible to identify clearly distinctive groups among the respondents with the application of the K-Mean cluster analysis.

The four principal components formed with the aggregation of attitude variants allowed to compose four consumer groups, each representing a different way of thinking.

The members of the first cluster ('consciously in favour of the local produce': 20.6%) were the most self-conscious of all, in addition, it was them who considered the most important to have domestic or small farmers' goods on their dining table. Moreover, the criterion of food safety bore greater significance to them than to the average, although this perspective was less definitive in this group. On the other hand, they do not trust the foodstuffs traded in shops nor the inexpensive, and they believed that the goods produced by small farmers is not more difficult to safety-check than the ones of big-scale producers.

The second and biggest group ('universal': 43.5%) represented/embodied a kind of complex perspective, since I received a positive value average concerning all aspects, out of which the standard content-reliability query gained the highest average compared to both the other groups and the other 3 principal components. Furthermore, the members of this cluster regarded the small farmers' produce as safe as the ones sold in retail shops.

The third cluster ('indifferent': 20.6%) provided the exact reverse evaluations of the previous group as to the examined factors; in this segment, the average of the principal component scores slipped to the negative range in each and every case. Out of these, the reliability of the standard supply chain approached the zero quality, hence in this case the estimation was rather average than negative. Nevertheless, the members of this cluster evaluated both the criteria for the consciousness and the aspects of trustworthiness with the lowest scores, suggesting a certain detachment and pessimism referring to both the short supply and the long supply chain commodities.

The last group and, as well as the one with the fewest members ('in favour of the standard supply channel': 15.3%) believed that the domestic and small farmers' produce is less trustworthy than that marketed by the standard supply channels; these aspects received the highest average value in this cluster out of all. Additionally, the preference of the domestic products and the direct supply statements were the lowest.

The rate of female participants was the lowest (64%) in the first group ('self-conscious, in favour of local products') preferring the domestic and small farmers' produce. In the 31% of the cases there was a minor under the age of 14 living in the household, which was the second lowest rate among the clusters. As well as in the 'indifferent' cluster the economically active respondents were

represented the least (79%). In addition, the rate of participants holding a degree was also the lowest here (75%).

The 43 percent of the complexly thinking, second ('universal') group's members were raising a dependent under the age of 14 in the household, which was the highest figure among all the clusters. In addition, the economically active population was represented to the greatest extent (85%) similarly to the 'in favour of standard supply channel' group. The rate of those residing in the capital city was 50% in this group, while the same value in the fourth – 'in favour of standard supply channel' – group came to 81 percent. Furthermore, the highest proportion of the income was spent on foodstuff in this group, representing an average of 4.0 out of the 10 categories by this cluster; it means that the 31-40 percent of the household income was spent on purchasing foodstuff monthly.

The 'detached' third cluster involved the most female respondents (84%), in addition, the average age was also the lowest with 39 years. The members of this cluster live in the smallest households on average, with 2.9 members, similar to the 'in favour of the standard supply chain' cluster, while the rate of families with small children is the second highest one (40%). Finally, as it was mentioned during the presentation of the 'self-conscious, in favour of local produce', the majority is covered by the economically inactive respondents (78%).

Those having trust in the long supply chains are the oldest participants (43 years old) belonging to the – 'in favour of the standard supply channel' – the fourth group. Here is the lowest number of the ones living in one household (2.7 persons), as well as the number of families with small children (27%). On the other hand, the fourth group can take pride in the highest rate of economically active (86%) and degree-holding members (95%). The proportion of the ones residing in the capital city came to 81 percent in the cluster, with the highest monthly income category (151-250 thousands HUF) as well as with the lowest rate of expenditure on foodstuff (21%).

According to the results of the study conducted regarding the service quality of farmers' markets among the consumer clusters defined by the attitude variants, the groups provided a differing evaluation of the products available in the markets, the services, the convenience factors, and the circumstances and the environment of the markets. Surprisingly, the greatest discrepancy between the product expectation and experience was detectable in the feedback provided by the members of the segment committed to the domestic and local foodstuff (-0.87), even though the criteria in connection with the foodstuff available reached the expected level in none of the groups. Except for the cluster of the 'complex way of thinking' participants, all the segments evaluated the dimension of the services positively, while none of the groups remained satisfied with the convenience factors. With regards to the circumstances of the markets, the opinions were divided between the segments: according to the opinion of the standard trustworthiness supporters, the experiences came beyond the expectations (+0.15), whilst the satisfaction of the – 'detached' – third cluster came close to the expected level (-0.06). As opposed to that, two potential target groups esteemed that improvement is mandatory in the field mentioned. In total, group two expressed the lowest grade of satisfaction (-0.42), with a similarly less positive evaluation of the type of shopping by group one (-0.34). The difference between the expectations and experiences of the fourth segment was -0.12. Taken all into account, the service quality of the markets came closest to the expectations 'the detached' (-0.01) (Table 3).

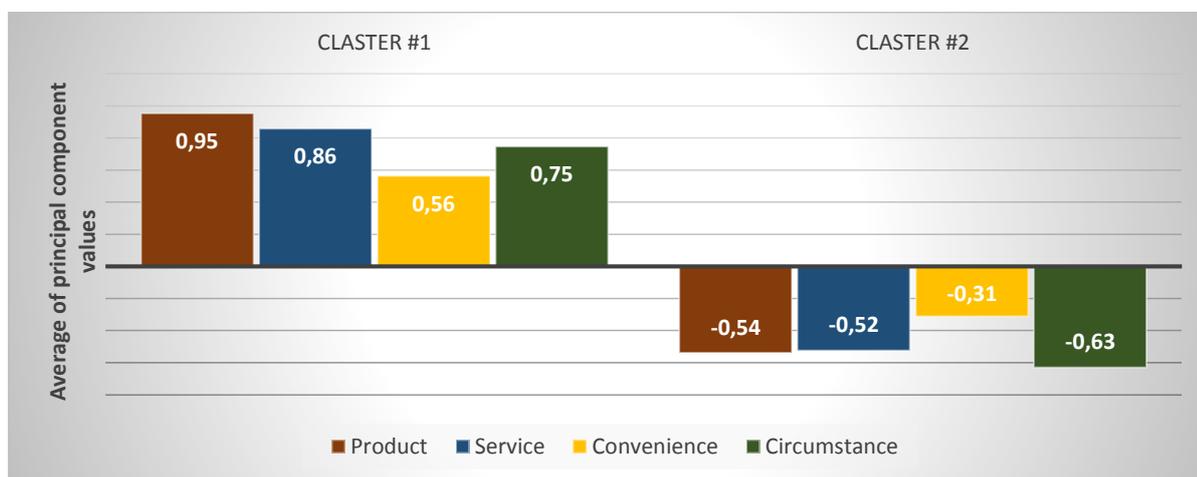
**Table 3: Service quality evaluation/examination of the clusters defined by the attitude variants regarding shopping and products (N=170)**

Dimensions	Consumer Satisfaction			
	1. Cluster #1	2. Cluster #2	3. Cluster #3	4. Cluster #4
Product	-0.87	-0.63	-0.19	-0.53
Service	+0.15	-0.15	+0.33	+0.28
Convenience	-0.43	-0.57	-0.16	-0.34
Circumstance	-0.22	-0.35	-0.06	+0.15
<b>Total</b>	<b>-0.34</b>	<b>-0.42</b>	<b>-0.01</b>	<b>-0.12</b>

Source: Author's own editing

With the aim of getting a more accurate picture about the customer base of the markets, I conducted the cluster analyses involving the queries which covered the experiences referring to the services (provided by the markets), the aspects of convenience, and the operation circumstances of the markets. For the cluster definition, I firstly created principal components along the four dimensions. In the cluster creation, exclusively those respondents were involved, who provided valid evaluation to all the queries including the experiences of the four principal components regarding the markets, not marking the 'I am not able to evaluate' option. Hence, I prepared the cluster analysis with the participation of 72 respondents. I gained the clearest cluster structure with the separation of two groups, so I accepted this option adjusting to my goal, that is, to explore the characteristics of the customers satisfied with the farmers' markets. Moreover, the low participation rate also reinforced the above solution.

The two groups separated remarkable in the field of the evaluation of the experiences regarding the farmers' markets. The first cluster gave a positive estimation of them along all dimensions, being the most satisfied with the aspects concerning the commodities. On the other hand, the second segment evaluated all the factors negatively, being the least satisfied with the market circumstances/environment according to their experience (Figure 8).



**Figure 8: The average of the principal components of the experiences regarding the dimensions describing the small farmers' markets by cluster (N=72)**

Resource: Author's own editing

Out of the group members (29) satisfied with the products, services, convenience factors, and circumstances of the market, the rate of women was 86 percent, while in the segment having a negative opinion the rate of them was merely 65 percent. The age of the members did not differ significantly as per groups; with the first cluster having an average of 39 years of age and the second 41. The rate of the ones living in the same household and raising children under 14 was higher in the cluster providing positive evaluation. The proportion of the economically active was

72 percent in the first segment 81 percent respectively in segment two. Nonetheless, while the rate of the inactive respondents being on maternity leave was 21 percent in the first group, this value was merely 5 percent in the second cluster. The number of degree-holders in the group dissatisfied with the local markets was the highest: 83 percent and 65 percent in the group of respondents having positive experience. The share of the residents of Budapest was slightly higher in the second group, with 57 percent in the first and 63 percent in the second segment respectively.

The monthly net income per capita was the highest in the case of the second group, whilst the share of the expenditure on foodstuff out of all shopping was the lowest in the first segment, having a minimum difference between the two, though.

I detected no connection between the two types of cluster structure developed along the attitude variants and experiences regarding the farmers' markets; the division of the clusters formed according to the evaluation of the farmers' markets did not deviate significantly from the segments created as per the mentality.

### **3.6. The comparison of the market organiser, producer and consumer survey**

The SERVQUAL model in the markets organiser, producer and in the consumer survey provided me with the opportunity to compare the participants' expectations and experience of the local markets, as well as the evaluation of the service quality.

To begin, I compared the service quality evaluations of each factors among the participants. Firstly, I contrasted the market organisers' values with the consumers', then I examined the difference between the results provided by the producers and the consumers. Lastly, I drew parallel between the organisers' satisfaction with the markets with the producers' evaluation. The low, negative figures meant the following:

1. The consumer dissatisfaction is higher than that of the market organisers.
2. The consumer dissatisfaction is higher than that of the producers.
3. The producer dissatisfaction is higher than that of the market organisers.

While the high, positive figures denoted:

1. The consumer satisfaction is higher than that of the market organisers
2. The consumer satisfaction is higher than that of the producers
3. The producer satisfaction is higher than that of the market organisers

Contrasting the market organisers and the consumers' evaluation of the farmers' markets, it can be stated that each criterion concerning the products was considered under-secured by the consumers. The greatest deviance between the two evaluations regarded the trustworthiness of the product origin. Even though, both estimation fell into the negative range, the difference between them was still -0.74. Similarly, there was a significant diversion as for the food safety of the goods (-0.67), as well as the appearance and taste (-0.47) of the commodities available in the markets. In this dimension only the safety of the organic products was perceived in a less negative manner by the consumers than the market organisers. In the majority, there was hardly any difference in the field of services between the two groups. All the three participants agreed that the variety of products is to be widened, but considered as a more important issue by the organisers than the customers of the local markets. For the consumers, the opening hours are less suitable compared to the organisers' evaluation, as well as they had a difference of opinion as for the accessibility (-0.22).

Upon comparing the evaluation of the producers and the consumers, a nearly identical tendency is observable, but extent of the difference varied in several cases. The least agreed factor was the price-value relationship of the foodstuffs traded in the markets (difference: -1.07), while the availability of the domestic goods was perceived as assured rather by the consumers, although their satisfaction rate was in the negative range, too (difference: +0.51). The greatest deviation of

all in the satisfaction concerned the assurance of the payment with bank card. Even though the consumers considered it as a less important factor of the markets, the producers highly underestimated its significance (difference: -2.09). The aspect which holds the greatest deviation concerning the convenience is the opening hours in this case, as well (difference: - 0.78). Moreover, it was the consumers again who were less satisfied with accessibility and parking conditions (differences: -0.33 and -0.31). The same applies to the neatness of the markets and the availability of lavatories, considered less satisfactory by the customers, as well as the availability of other services in the vicinity of the market. The consumers evaluated the shopping experience positively, as opposed to the farmers who estimated 0.47 lower the level of satisfaction of the criterion in question.

Finally, I investigated whether the organisers and the producers evaluate the local markets differently from one another. The greatest negative deviation concerned the domestic products, of which the availability is ensured on the local markets according to the organisers, while the producers questioned its certainty assessing the criterion -0,9 lower than the organisers. In addition, as far as the food safety of goods available in the markets, the reliable origin of the products and the appearance and taste of the foodstuff, as well as the availability of the local commodities concerned, the producers were less satisfied than the organisers. As opposed to that, they found the price-value relationship of the products, and the array of organic goods more satisfactory than the organisers.

After the analysis of the farmers' market criteria, I also compared the SERVQUAL examination of the dimensions based upon the evaluation of the participants. The dimension of the products was considered to be of the greatest importance and the field which is to be improved according to all the market organisers, producers and consumers. At the same time, the supply did not keep up with the demand, since the consumer satisfaction was -0.4 lower than that of the organisers and -0.3 behind the producer satisfaction according to the results. As for the services provided on the farmers' markets, none of the participants had high expectations. However, with a remarkable difference between the organisers, producers and customers. The market organisers estimated that these criteria are to be enhanced in the markets, although there was no need claimed either by the producers or the consumers. On the other hand, the factors of convenience were held essential in terms of the successful functioning of the markets by all participants and also agreed that these conditions need to be improved, although there was a slight difference between the extent of this factor's importance among the participants. The consumer expectation concerning the criteria of the market circumstances and environment were more moderate than on the organiser and producer side. Nevertheless, neither the customers nor the organisers were fully satisfied with the aspects in question. The producer satisfaction was close to zero; that is, they attributed less significance to the factors defining the circumstances in the local markets than the other two groups involved. In total, farmers' markets were the closest to the producers' expectations while both the consumers and the organisers claimed to nearly the same extent that there are fields to be improved in this supply channel, which allows the farmers' markets to be made more appealing.

#### **4. CONCLUSIONS AND RECOMMENDATIONS**

Based on the results of the settlement level research of the farmers' markets, it can be stated that the difference between the vendors' and farmers' markets exist not only according to the legal regulation definition, but also in practice the two types of supply channels bear distinct characteristics. It can mean that the vendors' markets adjust to the offer side, while the farmers' markets adapt to the demand, based on their dispersion.

I used the adaptation of a multi-dimensional method with the involvement of an expert group to support the venue selection of the farmers' markets. During the process, we defined the aspects and criteria of the location selection according to the organisers, producers and consumers' needs. To each criterion we linked weights thus allowing the measurability and comparability of the

market venues. While working, the participants reached a consensus in terms of the significance of the aspects, as well as they agreed on the criteria which were not represented in the North-American study but are of great significance in Hungary.

The market organisers identified the fields to be developed in connection with their markets. The narrow variety of products was considered as the most significant leeway and on dimension level the lack of conveniences was viewed as the greatest default. As for the motivating factors of the market opening, the organising way of thinking emerged in the planning, setting the social and moral factors priority, and characterising the perspective of the largest group of the participants.

The main motivation for the trading in the local markets on the producers' side swayed from the income increase to the direction of the consumer demand fulfilment, compared to the survey data from 5 years earlier. Products traded on the markets more and more often include processed and high added value commodities. According to the outcome of the SERVQUAL model, alike the market organisers, the producers also identified the fields to improve in their markets. The small range of products was perceived as the greatest leeway, and on dimension level the lack of factors concerning the products was the most significant default.

We can state according to the outcome of the consumer survey that the respondents participating in the research primarily take the safety and quality factors into consideration when shopping foodstuff, which criteria they do not perceive as totally ensured in small farmers' produce; while having meagre information about them. Simultaneously, it is of great importance that they purchase domestic foodstuff, thus this cluster of questions also proves that the share of the small farmers' goods from the total foodstuff purchase is possible to increase. Based on the service quality examination, the greatest difference occurred between the expectations and experiences concerning the products, but they did not reach the consumer expectations, not in total, either. According to the consumer cluster analysis, there was no relevance to / no connection between the perception formed about the products and the shopping and the evaluation of the local markets. It is paramount to emphasise /point out/stress/highlight that exactly the potential customer base of the farmers' markets was the least satisfied with this form of the direct supply channel.

The comparison of the SERVQUAL models elaborated based on the organisers, producers and consumers' s expectations and experiences brought on the result that the participants' level of expectation and satisfaction were not in accordance. The greatest divergence is detected along the dimension of the products, where the offer did not follow the demand, since the consumer level of satisfaction was well below both the organisers' and the producers'. The communication and the exchange of information is insufficient despite the direct channel, and as a result the participants of the offer side do not entirely choose the most suitable strategy to enhance the turnover of their market. It is educating that there was less overlapping between the needs of the organisers and the producers than the ideal for the successful and sustainable operation of the market. The analysis discussed above pointed out that the consumer trust concerning the small producers' goods traded in the farmers' markets did not change in the past and it can be evaluated as low.

### **The results of the hypothesis research**

Based on the results of international and domestic literature, my hypotheses defined were divided into three groups: market organisers, small producers and consumers' group.

#### **H1: The launch of the farmers' markets is not the result of deliberate planning (Proved).**

The inevitable precondition of the long-term sustainability of the farmers' market is that the offer of appropriate quantity and quality meets the demand. In order that the market organisers gain information about the peculiarities of the offer and the demand in the local market, a pre-survey is to be conducted in the area. Nevertheless, merely half of the organisers participating in the research gathered information on the consumers and the producers' characteristics living on the settlement (part of the settlement) and in its vicinity. The results of the SERVQUAL model also indicated the

lack of familiarity with the demand, according to which the market organisers possess no exact information about the customers' expectations and experiences regarding the markets. As a result, the organisers are subject to opt for unsuitable strategy to increase the turnover of the market.

**H2: High added value products entered the range of products in the farmers' markets (Proved).**

The results of all the market organiser, producer and consumer surveys proved that, besides the base products, more and more space is conquered by the unprocessed and processed goods. After fresh vegetables and fruit, the third most common type of commodities is the processed and unprocessed fruit (composted fruit, jam, dried fruit, etc.), then came the dairy products, processed and unprocessed vegetables (types of sauces, pickles, etc.), in addition, meat products were part of the offer in almost every market surveyed. The data of the survey conducted with producers show that only 40 percent of the goods offered in the market were base products. While in the research of 2016 the half or three-quarter of the participants purchased at least occasionally foodstuff made from vegetables, dairy and meat products, and fruit in the local market, the same rate fluctuated between 9 to 58 percent, depending on the product type according to the 2011 RIAE survey.

**H3: The farmers trading in the farmers' markets typically do not diversify their activity, they use no, or only few, other supply channels to sell their goods. (Rejected)**

As opposed to the experiences presented in the literature, based on the responses of the producer survey participants, certain types of the Short Food Supply Chain had divergent share in the total supply. Selling goods locally at the farm took a share of only 17 percent on the list, which means that beside that a different supply channel was more considerable; selling at the farmer's premises was present as a supplementary option, which, after the farmers' market, was the second most frequently used way of supply of all. The proportion of the farmers' market covered a 48 percent average, the traditional vendor market was 20 percent and 17 percent took the participation in festivals and venues out of the total supply channels, which leads us to the conclusion that the small farmers do not exclusively use one type of trading channel. 73 percent of the producers sold their goods via various channels and the supply diversification characterised mostly the farmers participating in SFSC. Nonetheless, in order to prove that the number of the producers diversifying their activity increased in the Short Food Supply Chain requires further research.

**H4: The producers trading on the farmers' markets typically do not possess enough information about the consumers' needs and expectations (Proved).**

The of service satisfaction research conducted with the consumers and the producers proved that the producers, despite the direct contact, did not possess sufficient information as for the consumer needs. In all dimensions of the farmers' markets was the consumer satisfaction lower than the producer one. The most considerable difference in the evaluation concerned again the requirements for the products: the consumers expressed more distrust than the producers in connection with the origin and the safety of the goods. Additionally, it is important to mention services, e.g., the option of paying with plastic card, which criterion was considerably underestimated by the producers as opposed to the customers; this aspect was an element of great emphasis in the study of RIAE, 2011.

**H5: One of the most determinative element of the demand for the products of the farmers' markets is trust, whose cornerstone is the sufficient information received about both the farmers and their goods (Proved).**

The producer research resulted in the fact that an aspect which bears great importance for the consumers is the trust developed between them and the producers, which is proved by the detail that the majority of their customers are regulars. The correlation calculation also reinforced that the more customers visit a farmer, the more is the share of the regulars.

The outcome of the consumer survey showed that the respondents took the safety and quality aspects as first priority when purchasing food stuff, which criteria they do not find assured as for the small farmers' products as well as having meagre information about them. At the same time, they considered of great importance to buy domestic commodities, thus this cluster of responses also proves that the share of small farmers' products has the potential to increase as to the total food stuff trade. According to the analysis of the consumer survey, the ones avoiding the form of direct supply did not choose the/these? goods owing to the distrust in the small farmers' produce.

**H6: The socio-demographic profile of the consumer group loyal towards the farmers' produce has not altered during the past five years (Partially proved).**

The two groups developed based on the awarding of the farmers' markets did markedly separate from one another concerning the experiences about them. The first cluster evaluated the markets positively in each aspect, as opposed to the second segment, which evaluated every aspect negatively. Determined by the experiences concerning the local markets, the demographic characteristics of the customers satisfied with the farmers' markets partially adjusted to the particularities noted in the research resource: this cluster included women, families and middle-aged consumers. On the other hand, the characteristics like education and type of habitation did not adapt to the results of the research.

**Recommendations**

**R1:** The selection of the market place location is the result of a less conscious process although, both from the perspective of the demand and the offer, finding the ideal location considerably contributes to the long-run sustainability of the markets. We commenced the elaboration, of an easily applicable tool supporting decision-making, with an expert group, useful for both the organisers and the producers. Nevertheless, the multi-dimension criteria and the methodology of the application requires further correction and adaptation provable in practice, which, due to lack of resources at present, is awaiting resolution. It is advisable to finalise the method and to motivate the participants to select the location according to a more conscious strategy than the present one.

**R2:** The market organising competence is vital for the successful operation of the markets, as well as the study of the offer and demand potential. In most cases, the organisers do not possess the above information and as such, they decrease the chance of the long-term sustainability of their markets. It might be helpful to create the opportunity of the knowledge provision required for market organisation and management, in the form of training/counselling, as well as the creation of a forum where the organisers are allowed to obtain the current information.

**R3:** On the small producers' side, the main motivation of trading in the local market swayed from the profit gaining to the direction of the fulfilling the consumer demand. On the other hand, the consumer satisfaction evaluation regarding the markets and their products was more negative than the producers assumed, which means that the farmers still do not have the real picture concerning the consumer needs. This issue was stated as important according to the 2011 RIAE study as well, which pinpoints that the opportunity of information exchange provided via the direct consumer-producer contact is not yet sufficient. To improve that, it is essential to supply constant and detailed information about the produce traded in the markets for the customers, whose simplest method is to utilise the direct contact developed during the purchase process via verbal communication.

**R4:** The consumer survey resulted in the fact that the customer base of the local markets is increasable. Nevertheless, the potential consumer group is distrustful regarding the small producer goods, stemming from the fact, that the consumers do not possess sufficient information about the origin and ingredients of the produce, thus they consider them hazardous in terms of food safety, as well. To improve the consumer trust, besides the reinforcement of the producer-customer contact mentioned above, enhancing the communication, informing the customers in constant and

detailed manner about the producers, their products and the services available in the market is also required on the side of the market organisers.

**R5:** One other important outcome indicated that there was no satisfactory communication between any of the participants, since there was no agreement between the organisers and the consumers, between the producers and the consumers, and between the organisers and the producers concerning the expectations and the experiences as for the markets. This insufficiency discommodate both the adjustment of the offer to the demand and the approach of the target groups. To improve that the cooperation between the market organisers and the producers, and that of among the farmers is to be enhanced.

### **New and novel scientific results**

During my research, I studied the rate of the traditional and framers' markets in the period of 2012-2016. I presented characteristics of the regional dispersion of the markets and revealed the connection of their occurrence with county- and settlement level indicators. The national studies concerning the farmers' markets, in addition, the Short Food Supply Chains, have been lacking in the methodological analyses presented in my study.

To support the decision-making of domestic farmers' market location selection, I conducted a novel research and analytic work with the assistance of an expert group to adapt a multidimension method. My research resulted in the composing of a decision-making support method, which is definitely able to aid the ideal planning of the location selection and, at the same time, it is also able to enhance the chance of the long-term sustainability of the framers' markets in Hungary.

In the Hungarian scientific field, it has been without precedent up to date to study the characteristics of the farmers' markets from the three most important participants' perspectives by applying such a complex, multi-dimensional approach, utilising several statistical methods simultaneously. Based on the market organiser survey, I presented the operational characteristics and produce of the farmers' markets, in addition, I also revealed the identifiable differences in terms of the organiser strategies with the aid of cluster analysis.

I estimated, with novel, analytic work, the small farmers' aspects trading in the farmers' markets, the types of the supply channels used, the motivation for trading in the market and the reasons for avoiding that.

During the consumer survey, I studied the habits of food stuff shopping, the attitudes influencing the product selection and purchase, as well as the consumers' explanations avoiding the farmers' markets. I also estimated the characteristics of purchase regularity and the products on demand.

With the SERVQUAL method measuring the service quality, I modelled the following: the producers and the consumers' expectations of the criteria and dimensions concerning the products sold, the services available, the aspects of convenience in the farmers' markets, as well as the circumstances/environment of the operation of the markets, and, at the same time, their measure of satisfaction. On the producer and consumer side I compared all that to the results of the 2011 RIAE research, as well as I compared the producer and consumer survey results and defined the dimensions and aspects which showed considerable variance. I concluded that the level of communication and flow of information between the three participants is insufficient, which is a main obstacle to the increase of the demand for the small farmers' produce.

## 5. LIST OF PUBLICATIONS RELATED TO THE DISSERTATION

Articles in scientific journals/books in a foreign language:

1. **Szabó, D.** (2016): The criteria of site selection for farmers' markets. *Deturope: Central European Journal of Tourism and Regional Development* 8:(3) pp. 185-201. (2016) (ISBN 1821-2506)
2. **Szabó, D.** – Juhász, A. (2015): Consumers' and producers' perceptions of markets: service levels of the most important short food supply chains in Hungary. *Studies in Agricultural Economics* 117:(2) pp. 111-118. (2015)

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1. **Szabó D.** (2017): A termelői piacok fogyasztói megítélésének sajátosságai in: Szabó G.G. -Baranyai Zs. (szerk.): „*A szövetkezés – együttműködés akadályai, feltételei és lehetőségei a magyar élelmiszer-gazdaságban*”, OTKA K105730, Agroiinform Kiadó, 2017
2. Darvasné Ordos E. (szerk.) – Székelyhidi K – Felkai B. O. – **Szabó D.**: Az Európai Unió és a nemzeti élelmiszer-minőségrendszerek és védjegyek helyzete Magyarországon. Budapest: Agrárgazdasági Kutató Intézet (AKI), Agrárgazdasági Könyvek, 2014. 161 p. (ISBN:978-9-634915-90-4)
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6. **Szabó D.** – Juhász A. (2012): A piacok szerepe és lehetőségei a hazai élelmiszer-ellátási láncban. *Gazdálkodás* 56:(3) pp. 217-229. (2012)

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1. **Szabó D.** (2015): A termelői piacok helyszínválasztásának feltételei. In: Csata, A. –Fejér-Király, G. –György, O. –Kassay, J. –Nagy, B. – Tánczos, L. J. (szerk.): *12th Annual International Conference on Economics and Business: Value changes in a transforming economy: Challenges in the Carpathian Basin*. Konferencia helye, ideje: Csíkszereda, Románia, 2015.06.05 -2015.06.06. Kolozsvár: Editura Risoprint, 2015. pp. 84-99. (ISBN:978-973-53-1566-5)
2. **Szabó D.** – Juhász A. (2013): A piacok helyzete és lehetőségei a hazai ellátási láncban. In: Sikos T. T. (szerk.): *A válság hatása a kiskereskedelemre*. 298 p. Konferencia helye, ideje: Gödöllő, Magyarország, 2012.05.10 Gödöllő: Szent István Egyetemi Kiadó, 2013. pp. 237-268. (ISBN:978-963-269-386-6)

3. **Szabó D.** (2013): A termelői piacok Magyarországon: lehetőségek és veszélyek. In: Rechnitzer J. – Somlyódy E. – Kovács G. (szerk.): *A hely szelleme - a területi fejlesztések lokális dimenziói: A Fiatal Regionalisták VIII. Konferenciáján elhangzott előadások.* 677 p. Konferencia helye, ideje: Győr, Magyarország, 2013.06.19 -2013.06.22. Győr: Széchenyi István Egyetem Regionális- és Gazdaságtudományi Doktori Iskola, 2013. pp. 546-556. (ISBN:978-615-5391-10-1)

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1. **Szabó, D.:** Markets in the Hungarian food supply chain. In: 5th EAAE PhD Workshop. Konferencia helye, ideje: Leuven, Belgium, 2013.05.29 -2013.05.31. pp. 949-951.
2. Juhász A. – **Szabó D.** (2012): The possible role of markets in healthy food consumption In: Böröndi-Fülöp N., Barna R., Varga Á., Sente V. (szerk.): *VIII. Nemzetközi Táplálkozásmarketing Konferencia: Az egészség dimenziói a táplálkozásmarketingben.* Konferencia helye, ideje: Zamárdi, Magyarország, 2012.05.24 Kaposvár: Kaposvári Egyetem, pp. 33.

#### Other publications in Hungarian

1. **Szabó D.** – Juhász A. – Vörös M. (2013): A termelői piaccal szemben támasztott fogyasztói elvárások, az élelmiszervásárlási és – fogyasztási szokások felmérése országosan és az agglomerációs település lakosai körében. Kutatási tanulmány, Hélia Mintaprojekt, Fót (2013)