



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Marek Petriľák¹, Elena Horská², Jozef Palkovic³,
Vladimír Fuga⁴

^{1,2,4} Slovak University of Agriculture, Department of Marketing and Trade,
Tr. Andreja Hlinku 2, Nitra, Slovakia
m.petrilak93@gmail.com, elena.horska@gmail.com

³ The Slovak University of Agriculture, Department of Statistics and Operations
Research, Tr. Andreja Hlinku 2, Nitra, Slovakia
jozef.palkovic@uniag.sk

Analyzing the problems of Slovak local stores focusing on the price and availability of dairy products

Abstract: *The main aim of the article is to identify issues and analyze the affordability of dairy products at the local retailers in all regions of Slovakia.*

The main objective of the study is investigation of the availability of local dairy products in farms stores, and comparison of the prices of dairy products at the local stores with the prices of Slovakian products on the shelves of the selected major retailers. The European Union's efforts are to support rural development, including farmers at local, regional and national levels.

Our assumption is that specialized local stores offer mainly high cost and high quality products from the region and retail chains offer products from major Slovak dairy processors. The authors analyzed the relationship between the type of specialized store, region and demand for local dairy products using methods of Chi-Square Test of Independence and the Kruskal-Wallis test. The second part of the survey consisted of interviews to find out what the owners or operators of local farm stores are having problems with. The obtained data were collected from 67 local and farm stores. The stores which offered dairy products were compared with three selected major retail chains from the Slovak market.

The survey showed the results that point to consumers' low awareness of the importance of purchasing local products, customer inability to buy these products, the inability to compete with the retail chains or higher price and weak link between specialized stores and local farmers. If the prices of dairy products in local stores are higher, the availability of products is weaker, this situation

is creating space for a short food supply chain which, by reducing the number of intermediaries and using innovative tools, can scale down the price of the product and increase consumer interest.

Study shows that even customers are increasingly interested in local dairy products which they are buying in specialized stores, stores have problems with direct availability of farm products. Another problem which this study confirms is the price competitiveness of the retail chains, which is directly related to the consumer behaviours of buying products which are produced and processed in the region.

Keywords: *local stores, short food supply chain, dairy product, retail chain*

Introduction

The European structure of food retailing is changing rapidly. Concentration is increased through ownership, and large-sized enterprises and companies react to the slow growth of domestic markets by expanding to other markets. Retail chains are increasingly labelled to increase the differentiation between strings and then increase the loyalty business (Juhl, 2012). Retail chains based on their sizes can buy large volumes of goods at low prices and achieve economies of scale (Francova, 2009).

Changes in developed countries are geared towards universal forms of retailing, with companies specializing in spreading business risk and developing several business concepts (Kotler et al, 2007). This is also one of the reasons why they specialize in a particular product range, thus achieving the highest quality. Strong position of retail chains is also caused by the situation that the share of products with higher added value is constantly decreasing in Slovakia's agri-food exports and the share of basic agricultural raw materials with low added value is increasing.

Commercial retail chains sell especially products without added value. But then, processed products are imported from abroad (Petrilak, 2017). The formalization of the concept of the local food economy, which includes short or direct personalized supply chains as an alternative structure to the international supply chains that distribute anonymous products, has added to the growing academic and political interest (Watts, 2005).

The specialized local food store is an integral institution of rural communities and rural life. Specialized local food store not only provides a livelihood, but also performs the role of economic driver, community builder, employer and meeting place (Bailey, 2010). Larger food stores, such as supermarkets and retail chains versus smaller specialist stores, are more likely to supply healthy food and to offer food at higher prices (Powell,

2007). On the other hand, it is difficult to build or expand a network of local shops, taking into account the characteristics of local food product suppliers, as well as the characteristics of consumer demand in the food sector (Martinez, 2010).

Therefore, the development of new specialized food stores should be combined with price and accessibility initiatives that could help to overcome the gap between improving the perception of accessibility and behavioural change. Such initiatives could be supported by local health departments, which could, in cooperation with supermarket developers, provide targeted neighbourhood health promotion programs to increase their effectiveness. Small town residents are aware that local food businesses are improving their health (O'Brien, 2008). Farmers who sell locally grown food through farmer markets, roadside stands and other local grocery stores represent a small, but growing segment of agriculture. Consumer demand for food produced locally is driven by demand for freshness, support for the local economy and personal communication with the producer (Low, 2011).

Terms such as local food and local food system are often used to designate a place for food consumption in a modern or common food system (Peters, 2008). Local foods can be defined by the characteristics of the intermediate supply chain, such as processing and sales (Marsden, 2000). Based on research at the Iowa University Centre, it was determined that local product manufacture for on-farm markets and local farm stores is competitive with the same non-local items in supermarkets but possibly higher during the season (Pirob, 2009). There were some changes in food policy in the member countries of the Organization for Economic Cooperation and Development (OECD) over the last two decades. These mainly referred to the mandate for the elimination of subsidies and income support for farmers. Changes in these policies have led to predictable increases in food prices (Bekkers, 2017), which in turn lead to changes in the world food prices that can also lead to changes in local food prices (Baffes, 2003).

One important group of products in the food system is the group of dairy products that are greatly influenced by freshness. Milk and milk products are very important for our body because they help to keep it in good condition. Milk consumption is declining along with all the positive effects following from milk consumption, which is why some nutritionists are trying to solve this problem (Habanová, 2010). While the recommended consumption of milk and milk products is 220 kg per capita/year, current scientific studies suggest that in Slovakia total per capita consumption of milk and milk products in 2016 was only 176.2 kg without butter, which noted an increase of 7 kg or 4.1% compared to the previous year (Report on the market for milk and milk products, 2018).

Our assumption is that specialized local stores offer mainly higher price and high-quality products from the region compared to products from major Slovak dairy processors offered retail chains. The research compares prices of products from specialized local stores with an average price of the dairy product offered in 3 most famous retail chains in Slovakia, except corporate brand products which are mostly lower price. The second part of the study consisted of interviews conducted to find out what are the main problems of the owners or operators of local farm stores. The research was based on a questionnaire survey and personal interviews in the second quarter in 2018. The data were collected from 75 local and farm stores. The stores which offered dairy product were compared with three selected major retail chains from the Slovak market.

Results

The research observed specialized stores that offer dairy local products. Each region within the Slovak Republic was represented in the survey. Stores in smaller towns or rural areas were often separate buildings, but in larger cities, they are often centralized and located in shopping malls.

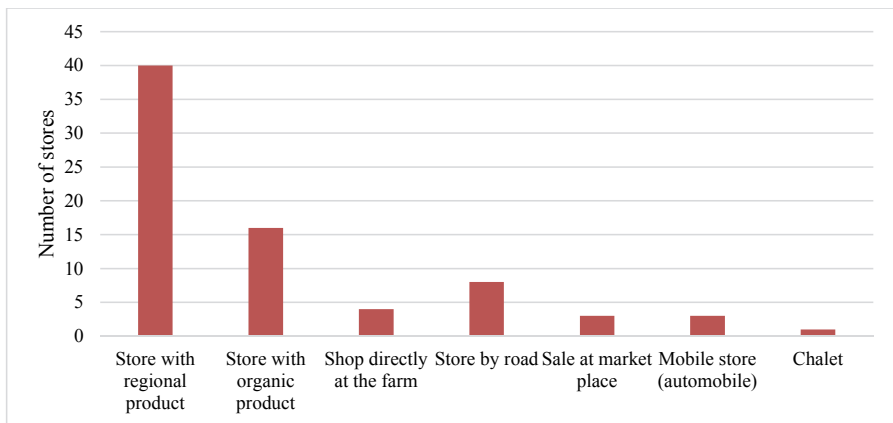


Figure 1. Type of specialized store

Source: Questionnaire surveys – personal processing (2018).

The survey was conducted among 75 stores, where the authors held a questionnaire survey and an interview with shop owners. Today's market situation and the growing trend of healthy diets show the results of a survey of 16 stores offering only organic products. On the other hand, a consequence of centralization may be a small number of stores directly on farms, sales at the market place and decreasing number of chalets.

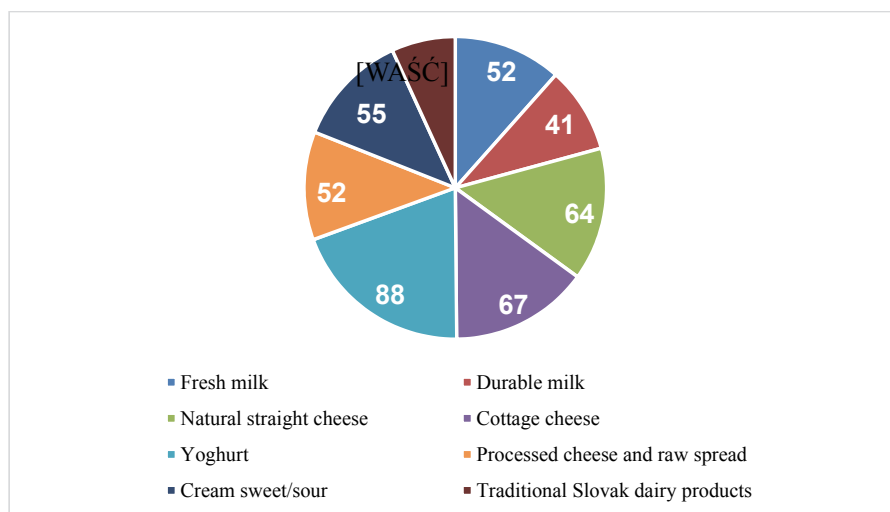


Figure 2. Availability of dairy products (%)

Source: Questionnaire surveys – personal processing (2018).

In specialized stores, we investigated the availability of dairy products. Yoghurt products offered the highest share of up to 88% of the analysed stores. This offer also reflects the production of sour milk products in Slovakia. It reaches the highest value among milestone products in 2017, and a slight decrease in production was recorded. Also, in the consumption of dairy products, yoghurts have the highest value and since 2013 they have had a constant impact down to a slight decrease in 2017. An interesting percentage of 33% can also be seen in traditional Slovak dairy products, such as sheep cheese: korbáčiky, žinčica and parenice.

The survey also compared prices of products offered by specialized local stores with prices of products offered in 3 of the most popular retail chains operating in Slovakia. Prices of individual products, which were not in discount, were averaged, and had no major fluctuations. The study did not take into account the brand labels of retail chains, but brands of large milk and dairy processors. Prices of 7 products were compared. The aim of the study was to prove or reject the thesis that products in small specialist stores are getting more and more expensive than products offered by chain stores, and to verify which products in particular are lower in price compared to retail chains.

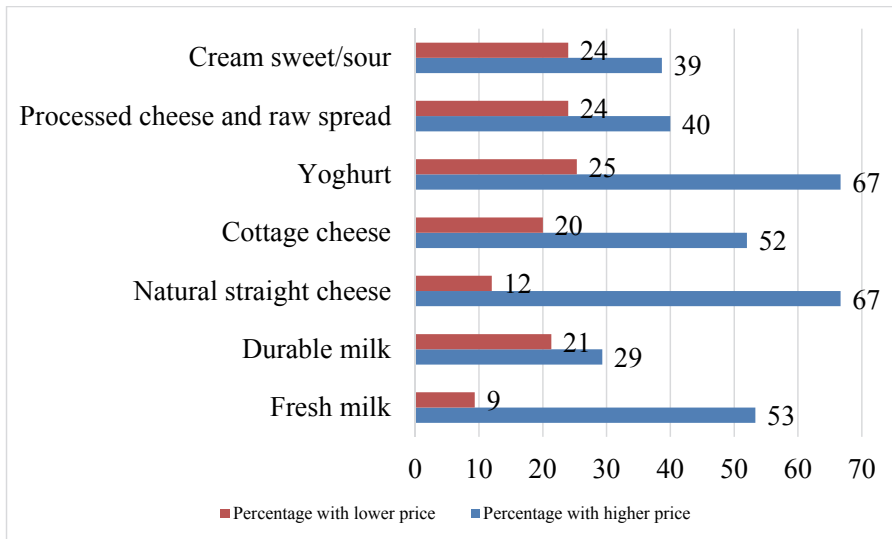


Figure 3. Differences in prices of the selected dairy products in specialized local store compared with brands in retail chains (% of local stores with higher or lower price)

Source: Questionnaire surveys – personal processing (2018).

Figure 3 shows a comparison of the product price from specialized local stores and product price from retail chains. The graph shows the percentage of stores where individual products were compared. It shows the percentage of specialized stores which have lower or higher product prices compared to the prices of products in retail chains. As research shows yoghurts (67%), cottage cheese (52%), natural straight cheese (67%) and fresh milk (53%) – all have a higher price in almost all selected specialist stores, if compared to products from retail chains. Products such as cream sweet/sour, processed cheese and raw spread and durable milk have a lower price in specialized local stores than products in retail chain, making them competitive in terms of prices.

The next part of the survey focused on the origin of product offers and the problems encountered by owners and operators of specialized stores. Up to 70% of the companies surveyed offer products, of which 75-100% are from Slovak manufacturers, which are the main products and the rest are complementary products. Furthermore, 48% of the stores, offer products from the region where they are located, others import products from other regions. This refers more often to local shops and organic stores that offer mainly organic products. The study evaluated the most common responses from owners of stores, which were assessed as arithmetic average.

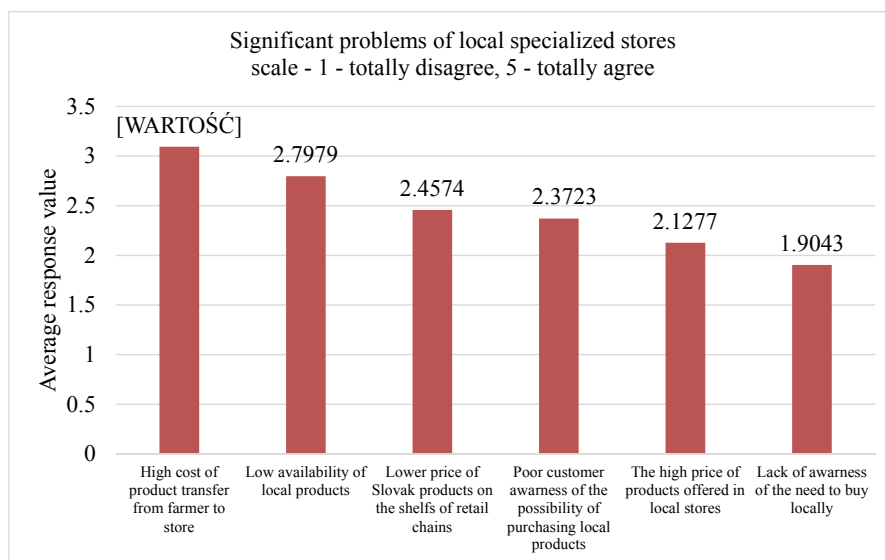


Figure 4. Significant problems of local specialized stores

Source: Questionnaire surveys – personal processing (2018).

The most common problems are: high cost of transporting products from the farm to the store and the low availability of local products in the regions where the shops sell their products. These 2 problems may be related. If a vendor wants to keep the freshness of their products and does not have enough suppliers (farmers) in the region, then the farmer must travel to another region to secure missing product range.

Other important factors include lower cost of Slovak products that are placed on the shelves of retail chains. These products are better promoted and are more available directly in the retail chain, where – as research shows – a large proportion of consumers buy today. As a result of the transformation of agriculture in Slovakia in the 1990s, the patriotism of consumers ceased and they were no longer proud of buying Slovak products and thus supporting their country. The current time is changing and consumers are returning to Slovak products, but it is still at a very low level. Poor awareness of the need to buy products from the regions is associated with the need to search for these products.

Conclusion

The survey results point to consumers' low awareness of the importance of purchasing local products, customer inability to buy these products, the inability to compete with the retail chains or higher price, and weak link between specialized stores and local farmers. If the prices of dairy products in local stores are higher, the availability of products is weaker, which creates

room for a short food supply chain. This in turn, by reducing the number of intermediaries and using innovative tools, can scale down the price of the product and increase consumer interest.

If CAP 2020 was an option, we would suggest two solutions. Support the creation of community-based small and medium farmers and local retailers. Another solution is support and creation of the short food supply chain at the national level of the Member States, with institutional support, able to compete with multinational business corporations. Creating communities and short food supply chain systems directly support rural development, contrary to retail chains, whose primary objective is profit.

The study shows that even customers are increasingly interested in local dairy products, which they buy in specialized stores, but stores have problems with direct availability of farm products. Another problem, which this study confirms, is the price competitiveness of the retail chains, which is directly related to the consumer behaviours of buying products which are produced and processed in the region. The study identifies that the market with local dairy products can compete with large retail chains, in case of price.

In our research, we have not evaluated the quality of the products, but according to previous findings, we can assume that local products are better, fresher and have a higher nutritional value than products sold in retail chains. Therefore, we recommend examining this issue in a more detailed survey of consumer behaviours and motivation to purchase local products.

Acknowledgements

The paper is a part of the research project APVV-16-0244 “Qualitative factors affecting the production and consumption of milk and cheese”, developed at the Department of Marketing and Trade, Faculty of Economics and Management, the Slovak University of Agriculture in Nitra.

References

- Agrárne trhové informácie Slovenska, (2018, December 20), Správa o trhu s mliekom a mliečnymi výrobkami za november 2018. Retrieved from: <http://www.apa.sk/index.php?navID=13> (access date 12.01.2019).
- Baffes, J., Gardner, B. (2003). The transmission of world commodity prices to domestic markets under policy reforms in developing countries. *Policy Reform*, 6(3), 159-180.
- Bailey, J. M. (2010). Rural grocery stores: Importance and challenges. *Center for Rural Affairs Rural Research and Analysis Program. Published October*.
- Bekkers, et al. (2017). Local food prices and international price transmission. *World Development*, 96, 216-230. doi.org/10.1016/j.worlddev.2017.03.008.

- Cummins, S., Flint, E., Matthews, S.A. (2014). New neighbourhood grocery store increased awareness of food access but did not alter dietary habits or obesity. *Health Affairs*, 33(2), 283-291. doi.org/10.1377/hlthaff.2013.0512.
- Francová, Z. (2009). *Teória obchodu*. 1. vyd. Bratislava: Vydavateľstvo EKONÓM, 2009. 190 s. ISBN 978-80-225-2725-5.
- Habánová, M., Lorková, M., Kopčeková, J. (2010). The consumption of acidophilus drinks and yoghurts in a selected population of pupils in 2004 and 2008. *Potravinárstvo Slovak Journal of Food Sciences*, 4(3), 19-23.
- Juhl, H.J., Kristensen, K., Østergaard, P. (2002). Customer satisfaction in European food retailing. *Journal of retailing and consumer services*, 9(6), 327-334. doi.org/10.1016/S0969-6989(02)00014-0.
- Kotler, P., Wong, V., Saunders, J., Armstrong, G. (2007). *Moderní marketing*. Grada Publishing a.s., 2007. 1041 s. ISBN 978-80-247-1545-2.
- Low, S.A., Vogel, S.J. (2011). *Local foods marketing channels encompass a wide range of producers* (No. 1490-2016-128135, p. 18).
- Martinez, S. (2010). *Local food systems; concepts, impacts, and issues* (No. 97). Diane Publishing.
- O'Brien, M. (2008). *Small Town Grocers in Iowa: What Does the Future Hold?* (No. 12970). Iowa State University, Department of Economics.
- Peters, C.J., et al. (2008). *Foodshed Analysis and Its Relevance to Sustainability*. Renewable Agriculture and Food Systems, Vol. 24, pp. 1-7. DOI:10.1017/S1742170508002433.
- Petriľák, M., Horská, E., Šumichrast, J., Palkovič, J. (2017). Comparison of Slovak dairy products with and without added value sold by commercial chains. In the *International scientific conference RURAL DEVELOPMENT 2017* (pp. 1238-1243).
- Pirog, R., McCann, N. (2009). *Is local food more expensive. A Consumer Price Perspective on Local and Non-Local Foods Purchased in Iowa*. Iowa State University: Leopold Center for Sustainable Agriculture.
- Powell, et al. (2007). Food store availability and neighbourhood characteristics in the United States. *Preventive medicine*, 44(3), 189-195. doi.org/10.1016/j.ypmed.2006.08.008.
- Watts, D.C.H., Ilbery B. Maye D. (2005). "Making reconnections in agro-food geography: alternative systems of food provision." *Progress in Human Geography*, Jan 29(1), pp. 22-40. doi.org/10.1191/0309132505ph526oa.