



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.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

received: 01.10.2019
acceptance: 29.10.2019
published: 15.12.2019

Annals PAAAE • 2019 • Vol. XXI • No. (4)

JEL codes: Q13

DOI: 10.5604/01.3001.0013.5366

JOANNA SMOLUK-SIKORSKA

Poznań University of Life Sciences, Poland

SALES CHANNELS FROM ORGANIC FOOD PROCESSING COMPANIES

Key words: organic food, market, processing companies, sales, sales channels, export

ABSTRACT. The objective of the paper is identifying the main organic food sales channels from processing companies and attempting to determine their influence on organic food processing. Recently, the dynamic development of organic farming and its market has been observed. Nevertheless, the elements of this market show a number of weaknesses. One of the weakest links of the studied market is the processing of organic food, which bears a high transaction cost resulting from, among others, low distribution development. The paper presents the results of an inquiry research carried out in the first half of 2019 on 55 organic food processors. Conducted research shows that the production structure of the examined companies, mainly focused on fruit, vegetable and cereal products, is only partly adjusted to consumer expectations, who increasingly prefer organic dairy and meat. The main distribution channel is sales to small retail outlets. Wholesale trade came second, although still too underdeveloped, to assure effective products flow from processors to retail. More than half of the studied processors sell their products abroad, mainly to EU countries, North America and Asia. However, it is low-processed products, which are mostly exported. This is an unfavourable phenomenon from a value-added generating perspective.

INTRODUCTION

It is commonly believed that organic farming in Poland may become one of the elements of sustainable development of rural areas with regard to the particular benefits of environmental, economic and social character. This kind of farming has, thus far, been growing quite dynamically, mainly as a result of payments to the organic area. Nevertheless, an increase in the number and area of organic farms was not accompanied by an adequate growth of supply manifesting itself in an increase in agricultural production and processing volume. It contributed to a slowdown of Polish organic market development, which is still in its initial phase of development. According to the classification proposed by Ulrich Hamm et al. [2002], it shows features of emerging markets.

However, it is worth emphasizing that this market has recently become one of the most dynamically developing sectors of the food economy, mostly as a result of growth of consumer interest in high quality food, produced without the use of agricultural chemistry or artificial additives. It is estimated that, although the current organic food market

amounts for less than 1% of the whole food market, its growth rate indicators will reach double figures. Therefore, regarding the increasing importance of the organic food sector, it is necessary to determine the factors and barriers of market development and define the activities, which may contribute to an improvement in its functioning. Formerly conducted studies on the organic farming market in Poland concentrated, to a greater extent, on its demand side, particularly on defining the motives and frequency of purchase, the kind of purchased assortment or price acceptability [Żakowska-Biemans 2011, Łuczka-Bakuła 2007, Koreleska, Ziaja 2016, Wojciechowska-Solis, Soroka 2017, Witek 2017, Bryła 2016]. In turn, fewer studies were dedicated to the supply side of the market. Research conducted on the production sphere mostly covers the functioning and efficiency of organic farms [Nowogródzka et al. 2013, Komorowska 2013, Brodzińska 2014, Gil 2016, Nachtman 2015]. Moreover, except for a few studies, organic food processing has hardly been analysed in Poland [Łuczka 2016a, Smoluk-Sikorska et al. 2017] and other countries, as far as market environment is concerned. The investigations on this sphere, its relations with market actors, providers and recipients, are particularly important since it is a weak link of the supply chain in the organic food market. The number of organic food processing companies compared to the number of organic farms is insufficient and the structure of their production is unfavourable from the demand point of view as it is dominated by processed cereals and fruit and vegetable products, whereas the share of products of high consumer interest – dairy and meat – is much lower [Łuczka-Bakuła 2007]. The recognition of the state and barriers to the development of organic food processing may contribute to its functioning and, what follows, accelerate market development.

MATERIAL AND RESEARCH METHODS

The main objective of the article is the identification of the production structure and main sales channels of organic food processing companies and an attempt to define their influence on organic food processing. Considerations on determining the role of exports as a factor fostering the growth of organic food processing in Poland were carried out as well.

In order to achieve this goal, in the first half of 2019, an inquiry research on organic food processing companies covering relations between organic food processing and the market environment was carried out, preceded by a desk research analysis. In particular, the investigation concerned the volume and structure of production, the supply of organic raw materials, distribution channels as well as the scope of cooperation in the supply chain. The inquiry also covered the barriers and assessment of the operation of processing companies. The research was conducted in the form of a survey sent to the all active organic food processors in 2016 (483 companies), whose address data were provided by the Main Agricultural and Food Quality Inspection. 61 filled in questionnaires returned, from which, in the process of verification, 6 were rejected. A total of 55 inquired processors constitute 11.4% of all active companies in the database. The obtained data were processed and statistically analysed using Microsoft Excel.

RESEARCH RESULTS

When considering organic food processing, it is necessary to mention that it is subject to requirements defined in EU regulations. Currently, Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and Commission Regulation (EC) No 889/2008 of 5 September 2008 laying down detailed rules for the implementation of Council Regulation No 834/2007 are in force. These regulations refer to such terms as “natural” and “the restriction of the use of external inputs”. It results in the prohibition of the use of methods based on the application of chemicals and significantly limits the use of additives in processing by excluding substances and technological processes which could change the primary features of the product. Additionally, it is emphasized that all stages and actions in the production chain should be proceeded with care [Kahl et al. 2014]. This is particularly difficult to achieve, when one company runs organic and conventional processing simultaneously. In such cases, special care should not only be taken to separate raw materials or products temporarily and spatially, but also production equipment, which should be supported by keeping a register of all realised operations, should continuously be monitored. Therefore, both the production and processing of organic food is particularly complex and labour-consuming. It should be underlined that every organic food processing company, like farms, has to go through a certification process, in order to be able to mark products with the EU organic farming logo.

The conducted research (Figure 1) shows that micro companies came first and constituted 42%, followed closely by small enterprises (34.5%), and medium-sized ones (21.8). This means that processing companies are rather small, family companies, often run together with a large organic farm assuring the appropriate amount of raw materials or when larger groups of farms producing the needed raw material operate locally. Such a solution extends the farm's sales possibilities and, moreover, a farmer-processor has the opportunity to benefit from the value added related to organic food production.

The majority of investigated companies (nearly 57%) undertook organic food processing between 2011 and 2018, every fourth company in the years 2004-2010 and 15.7% before 2004, i.e. before Poland's accession to the EU (Figure 2). This is in line with the data presented by the MAFQI [Zdrojewska 2017], according to which, only recently, a

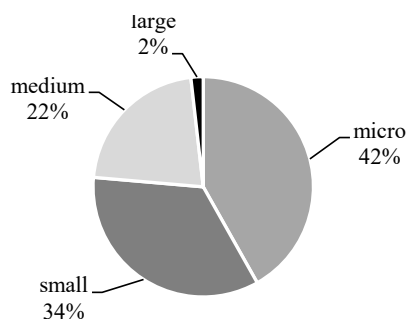


Figure 1. The investigated enterprises according to size

Source: own research (n = 55)

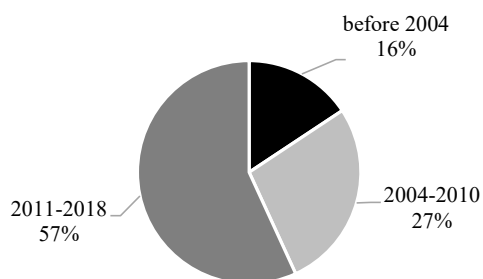


Figure 2. The year of launching organic food processing

Source: own research (n = 55)

significant increase of organic food processing companies took place, from 55 in 2004 to 795 in 2017. This growth results, first of all, from wider support of organic farming and processing and secondly – from the demand growth of both domestic consumers and foreign trade partners.

The majority of investigated enterprises (almost 58%) indicated that they sell (directly and indirectly) their products on the international market, and over 2/3 of the inquired responded that they sell on the domestic market at least (Figure 3). The necessity for searching for such markets results from the distance to the places of demand (large cities). Moreover, recipients of organic food – mostly small retail stores, try to assure the widest product range in their outlet and due to the insufficient amount of local processing companies, look for providers outside their region.

Simultaneous organic and conventional processing is commonly practiced by producers, not only in Poland, but also other countries, especially with mature organic markets [Willer, Lernoud 2019]. It is run by nearly $\frac{3}{4}$ of the investigated companies, wherein almost 70% of their organic production amounts to 20% of the entire food processing in an enterprise and in only every eighth of them – over 50% (Figure 4). Therefore, the conducted research shows that organic food processing is mostly a supplement to the primary activity run by investigated processing companies. Launching organic food processing helps increase competitiveness, gaining new markets or new customer groups, but does not change the basic business profile.

It is worth mentioning that all investigated companies solely processing organic food (25% of inquired companies) are micro and small companies. This means that the production and processing of organic food in Poland is not profitable enough to assure a level of possible investment, comparable with units dealing with conventional food, in such a company's development.

When it comes to the type of processing run, the investigated companies mainly processed fruit (38%), cereal (29%)

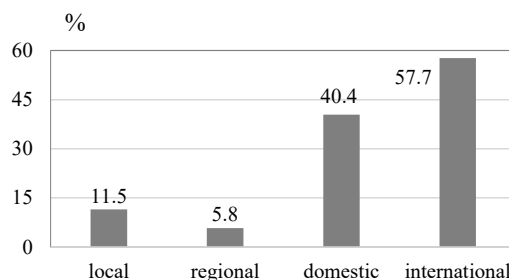


Figure 3. Geographical coverage of the investigated processing companies

Source: own research (n = 55)

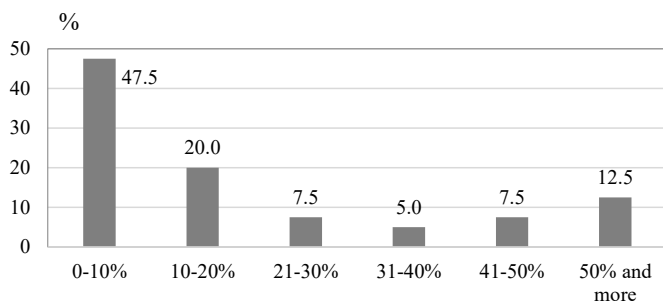


Figure 4. The share of organic food processing in overall enterprise production

Source: own research (n = 41)

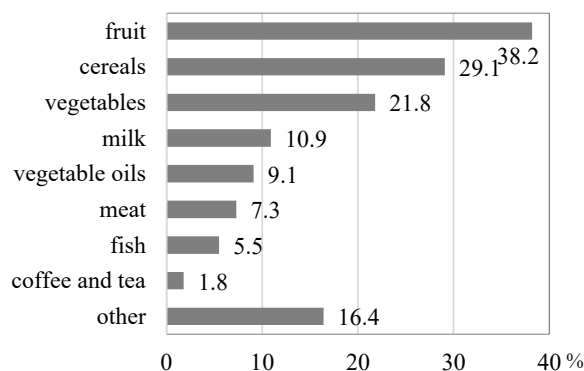


Figure 5. Categories of processed organic products in the investigated enterprises

Source: own research (n = 55)

and vegetables (21%) (Figure 5). To a lesser extent, they dealt with processing milk, vegetable oils (oil plants), meat and fish as well as tea and coffee. Over 16% indicated other products, such as eggs (the product of which is mainly egg powder), sugar beets, mushrooms or herbs. Compared to the structure of processing from 2016, presented in the MAFQI report, relatively more inquired processors indicated fruit and vegetable as well as cereal and milk processing (in the report 31.1%, 17.2% and 4.9%, respectively) [Zdrojewska 2017]. This may

prove that processing companies try to diversify their activities in order to widen their market offer.

Considering the products of the investigated companies, fruit and vegetable products dominate as well as cereal and dairy products and to a lesser extent – meat, oils, herbs, vinegar and egg powder (Figure 6). As mentioned before, the structure of organic food processing is not adequately matched to market demand. There are shortages in dairy, meat and organic sausages on the market. The available domestic organic food assortment offer (besides cereal, fruit and vegetable products) is quite poor, and has to be supplemented by imports. In turn, price availability of imported products is low for the majority of Polish consumers, who are forced to give up buying organic food.

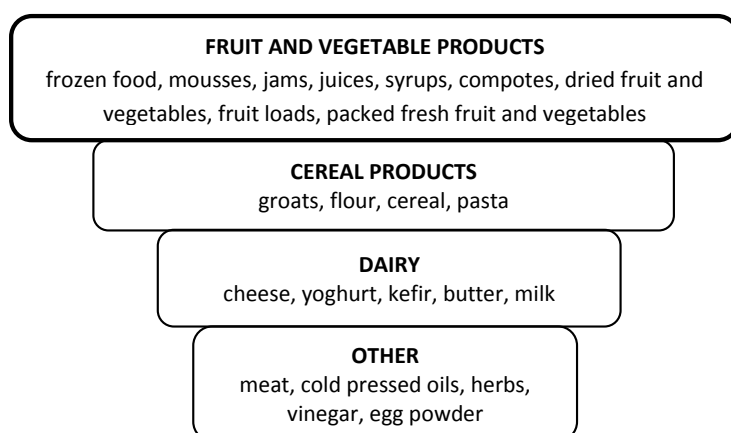


Figure 6. Main products of the investigated processing companies

Source: own research

Products offered by the studied companies are sold through different sales channels. Most (almost 42%) indicated short distribution channels, i.e. sales to small retail shops (specialist and general grocery) and wholesalers (36%) (Figure 7). Every fourth sold their products to retail chains and online shops and every fifth to middlemen (including exporters).

Figure 7. Sales channels from the investigated processing companies

Source: own research
(n = 55)



In spite of an increase in the engagement of retail chains in organic food distribution, their share is still insufficient. Apart from agreements on product deliveries, the examined companies did not indicate any other specific form of cooperation with this type of distributor. It is highly probable that a greater involvement of supermarkets with well-organised distribution channels, cooperating closely on both a vertical and horizontal level (producer groups), may contribute to the growth of efficiency and profitability of both production and distribution of the whole market, as in countries where the organic market reached maturity [Wier et al. 2005].

What is positive is the fact that a number of investigated processors (about 27%) sells their products to retail chains and these products are offered in retail under the distributor's own brand (e.g. Lidl, Auchan, Biedronka, Piotr i Paweł or Rossmann). This proves that, on the Polish organic food market, there are some signs of organised structures in the sphere of distribution, as in Western Europe. Nevertheless, in the researcher's opinion, such a form of distribution assures stable sales on quite good conditions, however processors lose their independence in creating their own brand and company image, thus resulting in the producer becoming less recognisable.

The investigated processors also indicated other forms of distribution, like direct sales (including sales on fairs) and to other processors for further processing (e.g. fruit load to dairies or flour and egg powder to bakeries), but they had a less significant meaning.

It is worth noticing that the key form of sales are small retail shops (in spite of a smaller quantity of products sold in one transaction, since the average number of shops provided for by one processor totalled nearly 49, whereas the average number of wholesalers was 7 and online shops – 5. This means that wholesale, i.e. the intermediate link between the production and retail sphere, is still not sufficiently developed. Wholesale should render a range of services for remaining market participants, such as: product storage, packaging,

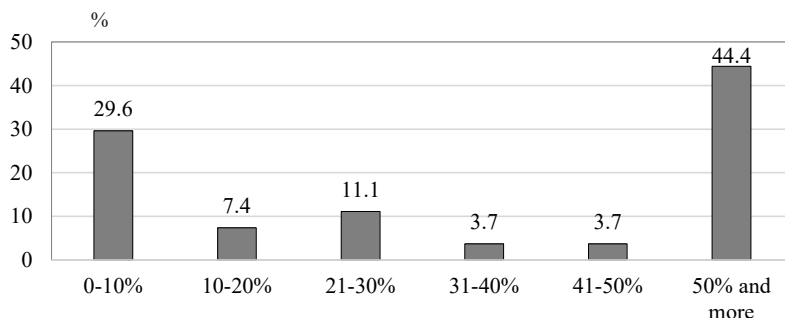


Figure 8. Export share in the sales of investigated enterprises

Source: own research (n = 28)

transportation, creating a base and crediting trade partners, etc., which should result in lowering producer and retailer business costs.

It is worth mentioning that half of the investigated processors (nearly 52%) declare the export of their products, mostly to EU countries (Germany, the Czech Republic, the United Kingdom, Belgium, the Netherlands, Austria, France, Italy, Hungary, Denmark, Greece, Sweden and Spain) and outside the EU (Switzerland, USA, the UAE, China, Japan, Hong Kong, Australia, Serbia and Canada). The main export products are frozen food (mostly for further processing), dried fruit and vegetables, herbs, mushrooms and apple juice. What is positive is the fact that among organic food export directions, it is more common for Asian markets to occur, which are characterised by a large growth potential and may be a significant export market for Polish processors in the future.

In over 44% of exporting enterprises, more than half of organic production is sold abroad, which may prove the export orientation of a number of Polish organic food processing companies. Due to exports, producers are guaranteed stable sales on good price conditions, however they have to fulfil a range of restrictive requirements concerning the quality and continuity of deliveries. On the other hand, with increased exports, in the case of an increase in demand on the domestic market further shortages of particular products may occur, which will have to be supplemented by more expensive substitutes from imports, which in turn may unfavourably affect the demand volume.

CONCLUSIONS

1. Conducted research shows that despite recent growth in the number of organic food processing companies, the increase is still insufficient to meet the growing interest of consumers in an ever more diversified product range of organic food. This is a common feature of markets in the initial stage of growth, which is taking place in other Central and Eastern European countries [Peetsmann et al. 2009, Aleksiev et al. 2019].
2. Most processing companies do not specialize in organic food and simultaneously process conventional food, which is evidence of the investigation carried out by Władysław Łuczka in this field [2016b].

3. The processing structure is not fully matched to market demand, since it is still dominated by processing cereal, fruit and vegetables and significantly fewer companies process meat and milk.
4. The most important domestic sales channel is selling to small retail stores, however this distribution form is related to high transaction costs. A factor affecting sales possibilities and simultaneously widening markets may be the faster development of organic food wholesale, which is an intermediate link between producers and retailers. A wider network of wholesalers and extending their service range may contribute to an improvement of the functioning of organic food processing and a reduction of selling costs.
5. A factor fostering the development of processing may be an increase in the share of retail chains in organic food distribution channels as they are large and strong units and may effectively organise distribution channels.
6. Research results also indicate the export orientation of a significant number of organic food processing companies. Nevertheless, what is worrisome is the fact that exports mostly cover intermediate products, such as frozen food, dried fruit and vegetables or concentrated apple juice, which in the destination country undergo further processing and packaging, thus a large part of the value added is taken over by the foreign processor.
7. The export of organic food is a developmental opportunity not only for processors, but also for organic farms, particularly when it comes to export to growing Asian markets. Although, in order to increase production profitability, processors have to make an effort to ensure the exported product is a final product, not requiring further processing.

BIBLIOGRAPHY

- Aleksiev Georgi, Dora Doncheva, Konstantin Stoyanov, Konstantin Stankov. 2019. Consumption and youth employment – impact on production of Bulgarian organic products. *Central European Review of Economics and Management* 3 (2): 49-62.
- Beck Alexander, Ursula Kretschmar, Otto Schmid. 2006. *Organic food processing – principles, concepts and recommendations for the future. Results of a European research project on the quality of low input foods*. Bonn: FiBL, Frick.
- Brodzińska Katarzyna. 2014. Rolnictwo ekologiczne – tendencje i kierunki zmian (Organic farming – tendencies and directions of changes). *Zeszyty Naukowe Szkoły Głównej Gospodarstwa Wiejskiego w Warszawie. Problemy Rolnictwa Światowego* 14 (3): 27-36.
- Bryła Paweł. 2016. Organic food consumption in Poland: motives and barriers. *Appetite* 105: 737-746.
- Commission Regulation (EC) No 889/2008 of 5 September 2008. laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control. Official Journal of the European Union, L 250/1.
- Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91. Official Journal of the European Union, L 189.
- Gil Agnieszka. 2016. Stan i przyszłość gospodarstw ekologicznych w drobnoobszarowym rolnictwie województwa Małopolskiego (State and future of organic farms in small area agriculture of Małopolskie Voivodship). *Studia Obszarów Wiejskich* 42: 197-208.

- Hamm Ulrich, Friedericke Gronefeld, Darren Halpin. 2002. *Analysis of the European market for organic food, organic market initiatives and rural development: Volume one*. Aberystwyth: University of Wales.
- Kahl Johannes, Farnaz Alborzi, Alexander Beck et al. 2014. Organic food processing: a framework for concept, starting definitions and evaluation. *Journal of the Science of Food and Agriculture* 94 (13): 2582-2594.
- Komorowska Dorota. 2013. Czynniki kształtujące efektywność gospodarstw ekologicznych o różnej wielkości. (Factors forming efficiency of organic farms of different size). *Zeszyty Naukowe SGGW w Warszawie. Ekonomika i Organizacja Gospodarki Żywnościowej* 104: 125-142.
- Koreleska Ewa, Paulina Ziaja. 2016. Preferencje zakupowe konsumentów owoców ekologicznych w regionie kujawsko-pomorskim (Purchase preferences of organic fruit consumers in kujawsko-pomorskie region). *Marketing i Rynek* 10: 246-256.
- Łuczka Władysława. 2016a. Mocne i słabe strony przetwórstwa ekologicznego (Strengths and weaknesses of organic food processing). *Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu* XVIII (5): 143-148.
- Łuczka Władysława. 2016b. the changes on the organic food market. *Journal of Agribusiness and Rural Development* 4 (42): 597-605.
- Łuczka-Bakuła Władysława. 2007. *Rynek żywności ekologicznej. Wyznaczniki i uwarunkowania rozwoju* (Organic food market. Determinants and conditions of development). Warszawa: Polish Economic Publishing House.
- Nachtman Grażyna. 2015. Efekty produkcyjno-ekonomiczne gospodarstw ekologicznych w 2013 roku (Economic and production effects of organic farms in 2013). *Roczniki Naukowe Ekonomii Rolnictwa i Rozwoju Obszarów Wiejskich* 102 (3): 78-90.
- Peetsmann Elen, Anne Luik, Katri Kall, Airi Vetemaa, Merit Mikk, Argo Peepson. 2009. Organic marketing in Estonia. *Agronomy Research* 7 (II): 706-711.
- Smoluk-Sikorska Joanna, Władysława Łuczka, Sławomir Kalinowski. 2017. The state of organic food processing in Poland. [In] *Competitiveness of European agriculture and food sectors. Proceedings of the 26th International Scientific Conference Agrarian Perspectives*, 349-354. Prague: Czech University of Life Sciences Prague.
- Wier Mette, Laura Mørch Andersen, Katrin Millock, Katherine O'Doherty Jensen, Lars Rosenkvist. 2005. Perceptions, values and behaviour: The case of organic foods. *Agriculture and Human Values* orgprints/5004/1/5004.pdf, access: 12.09.2016.
- Willer Helga, Julia Lernoud. 2019. *The world of organic agriculture. statistics and emerging trends 2019*. FiBL, Bonn: IFOAM, Frick.
- Witek Lucyna. 2017. Barriers to green products purchase – from Polish consumer perspective. [In] *Innovation management, entrepreneurship and sustainability 2017*, eds. Lukeš Martin Ondrej Dvouletý, Jan Misař, 1119-1128. Prague: University of Economics.
- Wojciechowska-Solis Julia, Andrzej Soroka. 2017. Motives and barriers of organic food demand among Polish consumers. A profile of the purchasers. *British Food Journal* 119 (9): 2040-2048.
- Zdrojewska Izabela. 2017. *Raport o stanie rolnictwa ekologicznego w Polsce w latach 2015-2016* [(Report on state of organic agriculture in Poland between 2015 and 2016). Warszawa: Agricultural and Food Quality Inspection, <http://www.ijhars.gov.pl/pliki/A-pliki-z-glownego-katalogu/ethernet/2017/pazdziernik/BRE/Raport%20o%20stanie%20rolnictwa%20ekologicznego%20w%20Polsce%20w%20latach%202015-2016.pdf>, access: 12.08.2019.
- Żakowska-Biemans Sylwia. 2011. Polish consumer food choices and beliefs about organic food. *British Food Journal* 113 (1): 122-137.

KANAŁY SPRZEDAŻY Z PRZETWÓRNI ŻYWNOŚCI EKOLOGICZNEJ

Słowa kluczowe: żywność ekologiczna, rynek, przetwórnice, zbyt, kanały sprzedaży, eksport

ABSTRAKT

Celem artykułu jest identyfikacja głównych kanałów zbytu żywności ekologicznej z przetwórnicy i próba określenia ich wpływu na przetwórstwo żywności ekologicznej. W ostatnim czasie obserwuje się dynamiczny rozwój rolnictwa ekologicznego i rynku jego produktów. Niemniej jednak, elementy tego rynku wykazują wiele słabości. Jednym ze słabych ogniw badanego rynku jest przetwórstwo żywności ekologicznej, które ponosi wysokie koszty transakcyjne, m.in. z uwagi na niski rozwój dystrybucji. Przedstawiono wyniki badań ankietowych przeprowadzonych w pierwszej połowie 2019 roku wśród 55 przetwórców ekożywności. Z przeprowadzonych badań wynika, że struktura produkcji przetwórnicy, w dużej mierze skoncentrowana na przetworach owocowo-warzywnych i zbożowych, jest tylko częściowo dostosowana do oczekiwań konsumentów, którzy w coraz większym stopniu preferują ekologiczny nabiał i mięso. Głównym kanałem sprzedaży z przetwórnicy są sklepy detaliczne. Na drugim miejscu znalazł się handel hurtowy, który jest jednak nadal zbyt słabo rozwinięty, aby zapewnić skuteczny przepływ produktów z przetwórnicy do detalu. Ponad połowa badanych sprzedaje część swojej produkcji za granicę, głównie do krajów Unii Europejskiej oraz do Ameryki Północnej i Azji. Przedmiot eksportu stanowią jednak produkty mało przetworzone, co jest zjawiskiem niekorzystnym z punktu widzenia generowania wartości dodanej.

AUTHOR

JOANNA SMOLUK-SIKORSKA, PHD

ORCID: 0000-0001-9599-0497

Poznań University of Life Sciences

Institute of Economics and Finance

Department of Economics

28 Wojska Polskiego St., 60-637 Poznań, Poland