



*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](mailto: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: 10.10.2019  
acceptance: 02.11.2019  
published: 15.12.2019

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

JEL codes: Q12

DOI: 10.5604/01.3001.0013.5444

**ZBIGNIEW NASALSKI**

University of Warmia and Mazury in Olsztyn, Poland

## **ECONOMIC INTEGRATION AS A FACTOR OF COMPETITIVENESS OF ENTITIES USING LAND FROM THE AGRICULTURAL PROPERTY STOCK OF THE TREASURY IN THE WARMIAN-MASURIAN VOIVODSHIP**

Key words: economic integration, competitiveness, agricultural farms

**ABSTRACT.** The aim of the research was to identify the significance and conditions of using economic integration as a factor of competitiveness of entities using land from the Agricultural Property Stock of the Treasury in the Warmian-Masurian Voivodship. The subject of the study were farmers' opinions on economic integration activities carried out on their farms. Research in a group of 166 farms located in the Warmian-Masurian Voivodship was carried out in 2018, using the diagnostic survey method, using a questionnaire. Integration with other business entities or agricultural environment institutions by most of the surveyed farm owners was not recognized as an important factor of competitiveness. Greater integration potential was present in large farms (100-500 ha), in farms with a predominance of revenue from plant production and in entities with a significant share of revenue from non-agricultural activities. Business entities more focused on integration activities more often declared a pro-innovation attitude and greater interest in participating in the creation of local food product brands. In economic policy (regional as well), it is important to strive to increase the implementation of integration activities, by, among others, offering a wider range of training and sharing information with farmers about the benefits and methods of implementing effective economic integration.

### **INTRODUCTION**

Economic integration more and more frequently allows to strengthen the competitive position of individual entities by combining activity objectives, functions, activities, organizational structures and resources. This combination applies to organizations that are separate in terms of ownership (capital-independent), which intentionally integrate with other entities with a similar activity profile and position in the distribution channel (horizontal integration) or with entities from other links of the common marketing channel (vertical integration).

The most important potential benefits of farm involvement in integration processes are related to, among others, an increase in the chances of selling own products, the possibility of easier acquisition of appropriate means of production, wider access to information and training as well as market risk reduction.

The benefits of economic integration are not solely attributed to individual economic entities, these benefits can also be indicated from a meso- and macroeconomic perspective. In meso-economic terms, they include the creation of a local culture of innovation and entrepreneurship, the economic activation of the region, the acceleration of knowledge transfer and specialist know-how to the region's economy, the creation of new jobs as a result of expanding the activities of business entities, the concentration and development of resource production factors as well as improving the image of the region. In macro-economic terms, attention should be paid to the opportunity of improving the economic situation, increasing the level of innovation in the economy, attracting investment, and activating economic activity translating into GDP growth [Kładź, Kowalski 2010].

Economic integration can be implemented in forms with varying degrees of organizational complexity [Hamel et al. 1989]. One of the simplest examples of this in agribusiness is the functioning of producer groups, while one of the more complex – coopetition and mutual complementation in the so-called Model 3C [Jankowska 2012, Sołek-Borowska 2014]. Coopetition assume simultaneous mutual competition and cooperation (e.g. in economic clusters) [Sulejewicz 1997, Gorynia, Jankowska 2008, Cygler 2009], more and more often enriched by complementing each other in the commercial offer, building a comprehensive set of products for customers, etc. [Sołek-Borowska 2014]. There are many other mechanisms of market regulation and coordination that most often occur in the form of hybrids created by various influences: competition, cooperation and control (they are much less frequently identified in business practice) [Gorynia 1995, Sulejewicz 1997].

Agribusiness is especially predisposed to effectively use integration potential in a competitive struggle. Farms in the food chain are a link preceding the food industry, which should care about maintaining high quality standards, primarily including sanitary and hygienic standards. In addition, the possibilities of selling raw materials by farms depend on the market efficiency of processing enterprises [Nasalski 2008]. The analysis of the situation of farms using land from the Agricultural Property Stock of the Treasury results from the fact that these entities are also characterized by a high determination to develop competitiveness confirmed, among others, by their effective search for the possibility of increasing the production area. The involvement of these entities, e.g. in economic clusters, may also result in the strengthening of the competitive position of agribusiness internationally [Cygler 2009, Figiel et al. 2012]. The purpose of scientific research was to determine the importance and conditions of using economic integration as a factor of competitiveness of entities using land from the Agricultural Property Stock of the Treasury in the Warmian-Masurian Voivodship. The researched conditions mainly concerned the agricultural producers' approach to the integration process.

## MATERIAL AND METHODS

The research objectives related to the identification of the significance and conditions of using economic integration as a factor of competitiveness of entities using land from the Agricultural Property Stock of the Treasury in the Warmian-Masurian Voivodship included:

- determining the extent to which economic integration is used in the process of competing entities using land from the Agricultural Property Stock of the Treasury in the Warmian-Masurian Voivodship,
- determining which instruments of competition are of significant importance in entities focused on economic integration,
- identifying the most important conditions for the implementation of economic integration by the owners of the surveyed related entities, related, amongst others, to the surface of farms, income structure, level of education of the owners.

The subject of research in 2018 were farmers' opinions on the importance and conditions of using economic integration as a factor of competitiveness of entities using land from the Agricultural Property Stock of the Treasury in the Warmian-Masurian Voivodship. Vertical and horizontal integration as well as competitive instruments were found on farms with varying degrees of involvement in integrated activities. These categories were considered in relation to the general economic and production parameters of the surveyed farms.

The subject of the study was a deliberately selected group of 166 farms located in the Warmian-Masurian Voivodship (representing all districts of the voivodship), using land (bought or rented) from the Agricultural Property Stock of the Treasury in their activities. The average area of the researched farms was 85.0 ha. Among the entities surveyed, the largest group were farms with an area of 51.0-100.0 ha (39.9%), while the least numerous group were units with an area of over 300.0 ha (4.1%). Farmers aged 41-60 (51.5%) were the dominant group of respondents. The most numerous group of farmers surveyed had a secondary education (49.6%), followed by a basic vocational education (28.0%) and higher education (18.5%). The research used the diagnostic survey method. The research questionnaire included a structured set of questions covering issues related to the opinions of farm owners on economic integration as a factor of competitiveness. For the most part, the questions came with a ready variant of answers and concerned, among others, the most important sources of competitive advantage, the importance of instruments of competition in the surveyed farms with different attitudes to integration as well as an assessment of the impact of economic integration as a source of competitive advantage. The respondents, on a 4-point scale (0 points – not significant, 3 points – a factor of very high importance), pointed to factors determining integration processes.

## RESEARCH RESULTS

Vertical and horizontal integration were not perceived by owners of farms using land from the Agricultural Property Stock of the Treasury in the Warmian-Masurian Voivodship as the most important sources of competitive advantage. The research results indicate that they were assessed as one of the least significant competitiveness factors (Figure 1). The surveyed farmers considered the most important: the scale of production, the possibility of using a larger area of land, technological progress, experience and farm management skills. The lowest grades were assigned (along with integration) to employee training and organizational culture. It should be noted that vertical integration was rated slightly higher than horizontal.

The contemporary economy increasingly requires the use of new instruments of competition, e.g. strategic partnership, integrated supply chains, coopetition, synergy, cooperation under pro-innovation programmes, etc. These activities usually do not involve individual entities but their groups (e.g. in the region) [Figiel et al. 2012, Jankowska 2012]. Lack of appropriate integration activities may have significant consequences for the development of agribusiness, especially in the regional dimension. A lack of combining activities, e.g. between farms and food processing, limits the possibility of rational planning of the raw material structure in individual regions of the country, and often leads to its quantitative and qualitative mismatching to the current needs of processing plants with an inability to sell products by farms at favourable prices. The opportunity to better stimulate the quality of raw materials by the processing industry is missed by providing farms with relevant knowledge, genetic material, feed and veterinary services, etc. A lack of relations between agribusiness links limits the coordination of sanitary and hygienic correctness, extremely important, among others, in the context of epidemiological threats developing in the Warmian-Masurian Voivodship, in livestock farming (e.g. ASF). From the point of view of farms, it is very important that the possibilities of selling raw materials depend primarily on the market efficiency of processing enterprises. All these elements also determine the achievement of meso-economic goals – as in the development strategy of the Warmian-Masurian Voivodship, whereby the production of high quality food was indicated as one of the region's smart specializations. Without the development of integration activities, achieving this goal would significantly be impeded.

Economic integration can be an effective means of implementing other important activities strengthening the competitiveness of economic entities. Research shows that

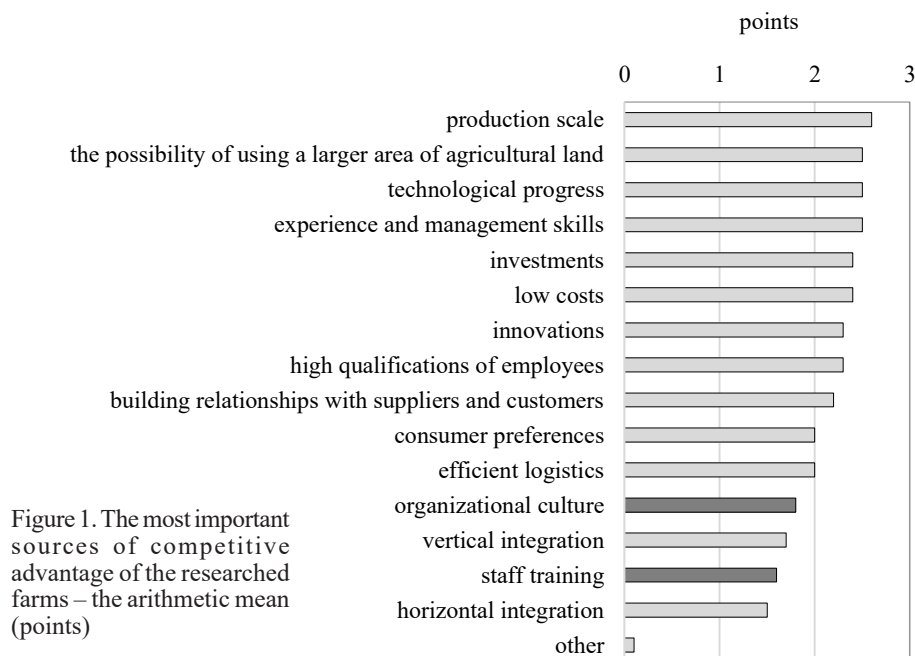
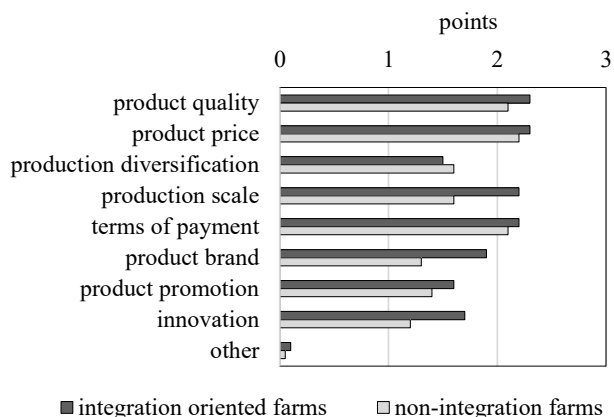


Figure 1. The most important sources of competitive advantage of the researched farms – the arithmetic mean (points)

Source: own research

Figure 2. The importance of competitive instruments in the researched farms with different attitudes towards integration – an arithmetic mean (points)



Source: own research

■ integration oriented farms    □ non-integration farms

representatives of farms indicating a greater focus on integration at the same time emphasized the greater importance of other significant competition instruments, and compared to non-integration farms, particularly emphasized the importance of the production scale, product brand and innovation (Fig. 2). With a large scale of operations, the effects of integration activities are more clearly noticeable, and the costs of conducting them are spread over a larger number of products.

As indicated by Joanna Zielińska-Szczepkowska and Roman Kisiel [2016] from many years of experience of countries such as Denmark, France, Germany, Great Britain, Ireland, or Sweden, it follows that cooperation should not only include the stages of food production and processing, but also its distribution. Creating a recognizable brand of food products by a single farm is very difficult, but with the use of integration activities it can become real for a group of entities, e.g. on a regional scale (e.g. the brand “Korycinskie cheese” has successfully been promoted by three integrated associations of producers from several communes of the Podlaskie Voivodship) [Nasalski et al. 2015].

From the point of view of economic policy, greater use should be made of institutional relations to implement innovation strategies in agriculture. The individual involvement of farms in the innovation process is difficult due to the specificity of the sector, primarily the biological and spatial nature of production, long production cycles, and seasonality of production [Kałuża, Rytel 2010]. It should be noted that innovative activity in agriculture can also manifest itself in integration activities with other agricultural holdings with a similar production profile or other links in the food chain [Juchniewicz et al. 2016].

Among the surveyed entities, the group most convinced of the beneficial effects of economic integration as a significant source of competitive advantage were farms with a large area (300-500 ha) (Figure 3). Larger farms with significant market potential see a greater importance of benefits obtained in integration processes than smaller entities, especially in vertical integration. Smaller farms should be more interested in horizontal integration to be able to then have a more favourable position in relations with the processing industry and suppliers of input, etc.

Considering the assessment of integration as a factor of competitive advantage by farms with different income structure, it should be noted that the highest assessment of vertical

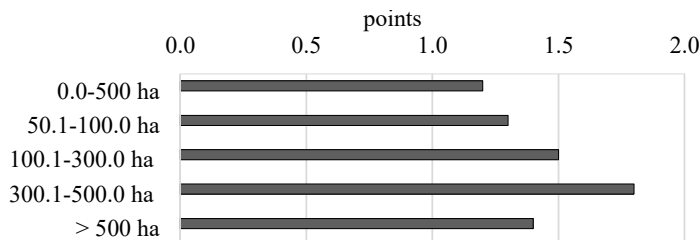


Figure 3. Assessment of the impact of economic integration as an important source of competitive advantage on farms of various sizes – an arithmetic average (points)

Source: own research

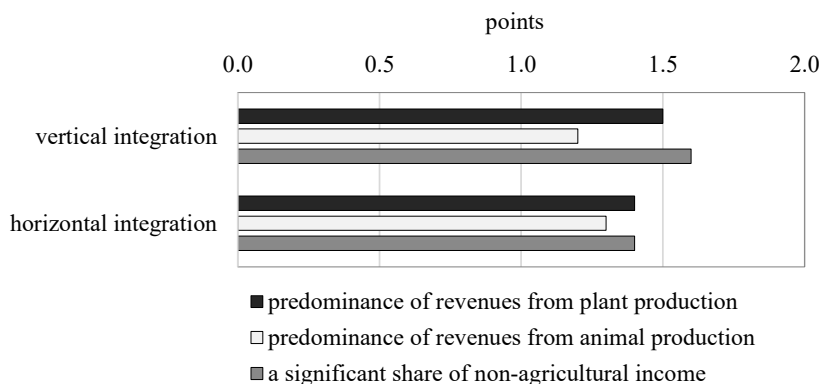


Figure 4. Assessment of the impact of economic integration as an important source of competitive advantage on farms with different income structure – an arithmetic mean (points)

Source: own research

integration was given by owners of farms with a significant share of revenue from non-agricultural activities (Figure 4). The prospect of functioning in economic activities other than just agriculture strengthens the belief that actions in integrated market structures are right. In the group of entities focusing exclusively on agricultural activities, integration was more favourably perceived on farms with a predominance of revenue from plant production than farms focused primarily on income from animal production. The efficiency of plant production is more dependent on natural conditions, and, according to Roman Chorób [2017], the possibilities of developing integration relationships at a microeconomic level are significantly determined by natural conditions, which are elements of the real sphere.

It should be emphasized that there were also significant differences in the assessment of the positive impact of economic integration by farmers with different levels of education. Farm owners create businesses in almost all areas of activity. They have specific qualifications, motivations to act and organizational skills. At a larger scale of production, they often conduct employment, motivating and employee development policies. People

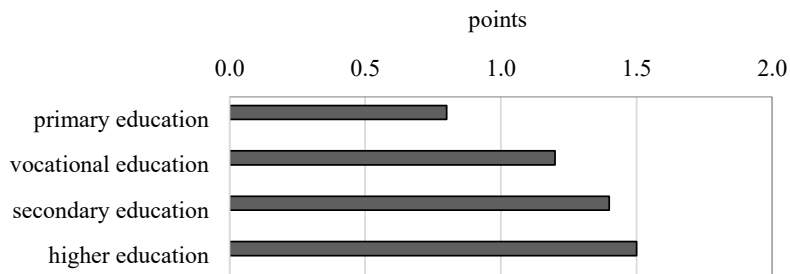


Figure 5. Assessment of the impact of economic integration as an important source of competitive advantage by farmers with different levels of education – an arithmetic average (points)

Source: own research

are also the most important factor shaping integration processes on farms. According to research conducted by Izabela Lipińska [2014], horizontal integration processes are slow, mainly due to social considerations. Farmers are often afraid of losing production independence, and therefore do not trust cooperation. Among the respondents surveyed, the highest awareness of the benefits of integration activities was indicated by people with a higher education (Figure 5). As the level of education increased, the assessment of integration activities as a source of competitive advantage grew. This confirms the thesis that assuming the development of integration processes in the region, educational (training) measures indicating the idea and application of this competitive advantage factor in practice should be taken into account.

## SUMMARY

The idea of economic integration due to potential micro-, meso- and macroeconomic benefits should be broadly implemented in agribusiness. Research in the group of farms with significant development potential, using land from the Agricultural Property Stock of the Treasury in the Warmian-Masurian Voivodship, indicates a relatively low assessment of this source of competitive advantage.

Business entities more focused on integration activities more often declared a pro-innovation attitude and greater interest in participating in the creation of local food product brands. The potential inherent in agribusiness integration could be useful, among others, in the implementation of many goals important in the context of regional development - in the Warmian-Masurian Voivodship such a goal (“smart specialization”) is to support the production of high-quality food. Low awareness of the idea of integration can be offset by a wider range of activities disseminating organizational methods, formal conditions, benefits and practical possibilities of implementing cooperation with other farms (e.g. in producer groups) and cooperation with entities from other links in the food chain and agricultural environment institutions (e.g. in economic clusters).



## BIBLIOGRAPHY

- Chorób Roman. 2017. Powiązania integracyjne rolnictwa z przemysłem spożywczym na Podkarpaciu (Integration links of agriculture with the food industry in Podkarpace). *Wiadomości Statystyczne* 6: 73-88.
- Cygler Joanna. 2009. *Kooperencja przedsiębiorstw. Czynniki sektorowe i korporacyjne* (Coopetition of enterprises. Sector and corporate factors). Warszawa: Oficyna Wydawnicza SGH.
- Figiel Szczepan, Dominika Kuberska, Justyna Kufel. 2012. *Klasy i inicjatywy klastrowe w polskim sektorze rolno-żywnościowym* (Clusters and cluster initiatives in the Polish agri-food sector). Warszawa: IERiGŻ.
- Gorynia Marian, Barbara Jankowska. 2008. *Klasy a międzynarodowa konkurencyjność i internacjonalizacja przedsiębiorstwa* (Clusters and international competitiveness and internationalization of the company). Warszawa: Difin.
- Gorynia Marian. 1995. *Teoria i polityka regulacji mezosystemów gospodarczych a transformacja postsocjalistycznej gospodarki polskiej* (Theory and policy of regulating economic mesosystems and the transformation of the post-socialist Polish economy). Poznań: Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu.
- Hamel Gary, Doz Yves, C.K. Prahalad. 1989. Collaborate with your competitors and win. *Harvard Business Review* 67 (1): 133-139.
- Jankowska Barbara. 2012. *Kooperacja w klastrach kreatywnych. Przyczynek do teorii regulacji w gospodarce rynkowej* (Cooperation in creative clusters. A contribution to the theory of regulation in the market economy). Poznań: Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu.
- Juchniewicz Małgorzata, Katarzyna Chrobocińska, Katarzyna Łukiewska, Zbigniew Nasalski. 2016. *Uwarunkowania działalności gospodarczej jednostek użytkujących zasób własności rolnej Skarbu Państwa* (Determinants of economic activity of units using the Agricultural Property Stock of the Treasury). Olsztyn: Stowarzyszenie Warmińsko-Mazurska Klinika Biznesu.
- Kałuża Halina, Monika Rytel. 2010. Innowacyjność w świetle studium przypadku gospodarstw rolniczych z gminy Mokobody (Innovation in the light of a case study of farms from the Mokobody commune). *Roczniki Naukowe SERiA* XII (5): 68-69.
- Kładź Katarzyna, Arkadiusz Kowalski. 2010. Stan rozwoju klastrów w Polsce. [W] *Polska. Raport o konkurencyjności 2010. Klasy przemysłowe a przewagi konkurencyjne* (Cluster development status in Poland. [In] Poland. Report on competitiveness 2010. Industrial clusters and competitive advantages). Warszawa: Oficyna Wydawnicza SGH.
- Lipińska Izabela. 2014. Rola integracji poziomej w ograniczaniu występowania ryzyka produkcyjnego w kontekście reformy wspólnej polityki rolnej – aspekty prawne i ekonomiczne (The role of horizontal integration in reducing the occurrence of production risk in the context of the reform of the common agricultural policy – legal and economic aspects). *Roczniki Naukowe SERiA* XVI (5): 139-145.
- Nasalski Zbigniew, Andrzej Fetliński, M. Andrzej Faliński. 2015. Model klastra producentów tradycyjnych produktów mleczarskich na Podlasiu (Model of a cluster of producers of traditional dairy products in Podlasie). *Przemysł Spożywczy* 4: 10-13.
- Nasalski Zbigniew. 2008. Structural gap in the links among agribusiness enterprises. *Olsztyn Economic Journal* 3: 103-113.
- Sołek-Borowska Celina. 2014. Od kooperencji do modelu 3C – ujęcie teoretyczne (From coopetition to the 3C model – theoretical approach) *Modern Management Review* 21: 129-140.
- Sulejewicz Aleksander. 1997. *Partnerstwo strategiczne: modelowanie współpracy przedsiębiorstw* (Strategic partnership: modeling of cooperation of enterprises). Warszawa: Oficyna Wydawnicza SGH.

Zielińska-Szczepkowska Joanna, Roman Kisiel. 2016. Zrzeszanie się producentów rolnych jako przykład współdziałania w sektorze rolnictwa – doświadczenia wybranych krajów członkowskich Unii Europejskiej (The association of agricultural producers as an example of cooperation in the agricultural sector – the experience of selected European Union member states). *Zeszyty Naukowe SGGW w Warszawie. Problemy Rolnictwa Światowego* 16 (2): 372–386.

\*\*\*

## INTEGRACJA GOSPODARCZA JAKO CZYNNIK KONKURENCYJNOŚCI PODMIOTÓW UŻYTKUJĄCYCH GRUNTY Z ZASOBU WŁASNOŚCI ROLNEJ SKARBU PAŃSTWA W WOJEWÓDZTWIE WARMIŃSKO-MAZURSKIM

Słowa kluczowe: integracja gospodarcza, konkurencyjność, gospodarstwa rolnicze

### ABSTRAKT

Celem badań była identyfikacja znaczenia i uwarunkowań wykorzystania integracji gospodarczej jako czynnika konkurencyjności podmiotów użytkujących grunty z Zasobu Własności Rolnej Skarbu Państwa w województwie warmińsko-mazurskim. Przedmiotem badań były opinie rolników na temat działań z zakresu integracji gospodarczej prowadzonych w ich gospodarstwach. Badania w grupie 166 gospodarstw rolniczych zlokalizowanych w województwie warmińsko-mazurskim przeprowadzono w 2018 roku metodą sondażu diagnostycznego z wykorzystaniem kwestionariusza ankiety. Integracja z innymi podmiotami gospodarczymi lub instytucjami otoczenia rolnictwa przez większość badanych właścicieli gospodarstw nie była uznawana jako ważny czynnik konkurencyjności. Większy potencjał integracyjny występował w gospodarstwach dużych (100-500 ha), w gospodarstwach z przewagą przychodów z produkcji roślinnej oraz w podmiotach o znaczącym udziale przychodów z działalności pozarolniczej. Podmioty gospodarcze w większym stopniu ukierunkowane na działania integracyjne częściej deklarowały nastawienie proinnowacyjne oraz większe zainteresowanie współudziałem w tworzeniu lokalnych marek produktów żywnościowych. W polityce gospodarczej (w tym regionalnej) należy dążyć do zwiększenia implementacji działań integracyjnych, m.in. przez szerszy zakres szkoleń i informowania rolników o korzyściach i metodach wdrażania skutecznej integracji gospodarczej.

AUTHOR

ZBIGNIEW NASALSKI, PHD

ORCID: 0000-0002-7633-4846

University of Warmia and Mazury in Olsztyn

Department of Enterprise Economics

4 Oczapowskiego St., 10-957 Olsztyn, Poland