

## Management in Agribusiness – Selected Issues

The article is an introduction into the subject of agribusiness, presenting its essence and management principles. The author analyses the concept and structure of agribusiness and the conditions of its functioning. The content of articles published in this issue of “Problemy Zarządzania – Management Issues” is also referred to. In discussing these issues, emphasis was placed on adopting a systemic approach to agribusiness and on the synergy between its individual components.

**Keywords:** agribusiness, concept, structure, development trends, policy.

**JEL:** Q13, Q15, Q18, R11, R58

### 1. Introduction

Since the 1960s, emphasis has been placed on a comprehensive approach to the production and supply of food, considered within the framework of agribusiness – a concept encompassing the entire food chain. In this issue of “Problemy Zarządzania – Management Issues”, matters related to its functioning and management are placed under scrutiny. This article is an introduction into agribusiness: the author adopts a systematic approach in presenting the essence of agribusiness and the conditions of its functioning. The article draws from extant literature, as well as agribusiness support programs, in particular those implemented following the adoption of relevant European Union directives. The methodology used by the author comprises analysis and synthesis, i.e. data processing methods.

### 2. The Concept and Structure of Agribusiness

Agribusiness encompasses various processes related to food production: from preparation for production, to production itself, to the supply of food to consumers. It comprises the following areas (Kapusta, 2012; Mrówczyńska-Kamińska, 2015; Urban, 2014a):

- provision of means of production and services for agriculture and the food industry,
- production of raw materials (agriculture, fisheries and forestry),
- processing of agricultural raw materials and food processing,
- warehousing, wholesale and retail sale of food,
- marketing of food products.

These types of activities form the food chain (i.e. agribusiness), which is consistent with its definitions. These elements of agribusiness – related to



the production and supply of food – are not open to debate. However, many definitions of agribusiness are much broader. At least three issues ought to be taken into account (Chechelski, 2015; Kapusta, 2012). First of all, according to many definitions, agribusiness also encompasses the production of non-food products from agricultural raw materials. They are products of agriculture and it is difficult to separate production processes resulting in the generation of raw materials used to satisfy food and non-food needs. Secondly, according to many definitions, agribusiness also involves food consumption and gastronomy, with further processing and refining of food prepared for consumption. Food consumption is a natural consequence of the previous phases and it proceeds from them, but does not always create a new value. Therefore, there is controversy as to whether this link can be considered as part of the agribusiness chain. On the one hand, there are differences between production and consumption; on the other hand, production and consumption of food cannot be separated. Consequently, many scholars regard food consumption as part of agribusiness. Thirdly, it should be taken into account that attempts are being made to produce food using substances other than agricultural raw materials. If these attempts come to fruition, the concept of agribusiness will need to be further expanded.

The integration of agribusiness and consumption is fostered by the approach to management that involves comprehensive understanding of the functioning of the food chain, of the flow of information within it, the fulfilment of consumers' needs in terms of food and its effectiveness. It is reflected in the economic and organizational approach to agribusiness defined as an efficient subsystem focused on meeting food needs and ensuring the effectiveness of food supply. Agribusiness can be defined as *a sequence of (decision making and execution) processes and (material, information and money) flows that aim to meet final customer requirements and take place within and between different supply chain stages* (Van der Vorst 2000). This outlook is also favoured in the approach to agribusiness from the point of view of food safety, which systematically presents individual stages, from the production of raw materials to food consumption (Szymanowski, 2008).

In the discussed approach to agribusiness, two elements are taken into account, namely (Kapusta, 2012; Woś, 1996):

- the area of activity of business entities,
- a separate subsystem within the national economy.

This approach testifies to the position of agribusiness in the national economy and its role in creating added value depending on the number and types of economic entities, management methods adopted, production techniques used, activities, etc. Agribusiness as a field of knowledge and research should also be taken into account (Akridge et al., 2012; Chechelski, 2015; Kapusta, 2012). In turn, this approach reveals research conducted to meet the needs of agribusiness. On the one hand, results of these studies favour structural changes in agribusiness and the introduction of innovations,

including food production and the organization of manufacturing processes; on the other hand, the introduction of product innovations on the basis of various recommendations (e.g. health, environment, ecology, etc.). For instance, great emphasis is nowadays placed on nutrigenomics, which analyses (...) *the relationship between diet and genes, and identifies mechanisms through which food and nutrition affects health and lifestyle diseases* (Barłowska, 2018). The role of science, and in particular results of scientific research and relevant innovations, have been strengthening. Therefore, this type of activity must be taken into account, as it affects the functioning of agribusiness and economic processes that take place within it.

Food production is undergoing momentous changes that follow the development of science and are not only directly related to agribusiness, but also to the environment, health, food security, organization and management, etc. (Barłowska, 2018; Mrówczyńska-Kamińska, 2015; Urban, 2015b). As a result, modern agribusiness undergoes numerous changes, including the following (Chechelski, 2015):

- increasing number of intermediate stages within the food chain, extending the food supply path ‘from farm to table’,
- technological changes in food production and storage methods,
- a higher degree of food processing,
- extended shelf life of food products,
- unification of food products,
- increasing range of food products supplied,
- growing competition in the food market, including international competition.

The observed processes may be, on the one hand, considered positive: the range of food products is more diverse and the needs of consumers are met. On the other hand, these processes may also have negative consequences, because the number of actors increases and it becomes more difficult to monitor the food market. Therefore, the agri-food policy is facing additional challenges related to the quality assurance of agricultural products.

Changes in the food market are reflected in the structure of agribusiness. For example, in selected European Union countries, the share of individual spheres in the structure of global agribusiness production in 2010 was as follows (Mrówczyńska-Kamińska, 2015):

	Supply to agriculture and food industry	Agriculture	Food industry
Austria	24.3	19.2	56.5
Bulgaria	20.8	37.8	41.4
Germany	29.6	14.5	55.9
Poland	23.6	25.8	50.6
Slovakia	26.2	29.2	44.6
Sweden	25.9	18.2	55.9

According to the data presented in the table, the food industry remains at the core of the agribusiness structure and its importance is expected to strengthen in the coming years. Similarly, the supply of means of production to agriculture and the food industry has been growing. At the same time, the share of agriculture in agribusiness production has been steadily decreasing; in Germany, its share has dropped below 15 per cent.

### 3. Selected Factors Affecting the Functioning of Agribusiness

The functioning of agribusiness depends to a large extent on the socio-economic policy, which defines the framework of its activities, requirements for business entities and their production behaviour, as well as other, closely related decisions (e.g. regarding biodiversity protection in agricultural areas). A variety of factors affect agribusiness entities: they are related to resources and technology, but also to environmental, social or cultural circumstances.

Although all of them are important in the management process, the emphasis on factors related to the environment and health has recently been increasing. I shall, therefore, outline selected issues that have been addressed in several European Union directives, namely:

1. Innovation as the foundation of the EU economy, as indicated in *EUROPE 2020 – A Strategy for Smart, Sustainable and Inclusive Growth*, which provides for the strengthening of the knowledge triangle (i.e. research, innovation and education), improving conditions for scientific development and research, more efficient use of resources and protection of the environment, sustainable development, etc. The Innovation Union and European Innovation Partnerships (EU, 2010) are tools in the process of implementing these changes;
2. European Innovation Partnership ‘Agricultural Productivity and Sustainability’ aimed at management in accordance with the principles of sustainability, integrated agro-ecological systems, the use of innovative products, devices and services, along with establishing a sustainable and appropriately managed food supply chain (EU, 2012; PROW, 2019);
3. National and regional smart specialisations, based on best-developed resources of a given area, including unique resources and taking into account the knowledge and cooperation of various groups of stakeholders. In Poland, the national smart specialization in agribusiness has been defined as *Agri-food, forest and wood and environmental bioeconomy*, within which the following three have been singled out: KIS 4. Innovative technologies, processes and products of the agri-food sector and the forest and wood sector, KIS 5. High-quality food, and KIS 6. Biotechnological processes and products of specialist chemistry and environmental engineering. At the same time, smart specializations at the regional levels were defined. Within these specializations, groups and

sub-groups have been distinguished to define their scope, e.g. innovative technologies and machines for agriculture and food processing, including energy-saving and sustainable technologies. These are agricultural sector strategies that define in detail their scope and suggested measures, while their impact on individual aspects of agribusiness depend on the region (KIS, 2015; RDP, 2019).

4. Multi-functionality of agriculture, emphasizing not only production, but also social, cultural and environmental functions of farming. Production includes, on the one hand, the production of food for sale and for one's own needs. Production may comply with environmental protection requirements, but it may also cause its degradation. In this regard, emphasis is placed on reducing the scale and methods of production in order to limit negative consequences, such as soil and water pollution with chemicals, reduction of agricultural biodiversity or soil erosion. It may be done through protective measures, innovation and education, but above all requires the creation of social and cultural capital and the strengthening of economic viability and social cohesion in rural areas. This concept involves the evolution of rural areas. Instead of focusing on the production of agricultural goods, they ought to provide a wide range of non-market values. This change could be supported through payments and subsidies granted to reward specific farm behaviours (Wilkin, 2009);
5. Improving the quality of agricultural and food products by promoting innovation and the development of knowledge in agribusiness and in rural areas, supporting the process of learning of food producers, cooperation and links between agriculture, food production and forestry, as well as research and innovation, *inter alia* for the purposes of integrated environmental management, etc. (PROW, 2019). It should be emphasized that the concept of food quality is complex and includes *health safety*, i.e. lack of microbiological, chemical and physical hazards, *organoleptic characteristics*, i.e. taste, smell, colour, consistency and appearance, *nutritional value*, i.e. the amount of micro- and macro-elements and vitamins important from the point of view of human health, and *availability* – ensuring durability, speed of service, type of packaging, etc. (Popek & Filip, 2008). Any new food products are subject to safety assessment and marketing authorisation pursuant to the Act on Food Safety and Nutrition (Ustawa, 2006).

#### 4. Summary of Articles

Articles published in this issue address various aspects of agribusiness, related to both entities operating within this sector and institutions that support it (e.g. in the field of science and research). In addition, attention is paid to resource management and agribusiness management, the

introduction of innovations and changes, including those resulting from legal regulations and policies that shape the agricultural sector and rural development.

The following articles form part of the present volume:

1. *Support for the Development of Agribusiness in the European Union Programmes* (Eugeniusz Karol Chyłek), which discusses the development of innovation and competitiveness of agribusiness in the European Union as a result of bringing together science and business, as well as sustainable economic growth, based on the efficient management of natural resources and the cooperation of various stakeholders from the agribusiness sector, administration and science. The author outlines the principles governing the implementation of the 9<sup>th</sup> EU Framework Programme for Research and Innovation for 2021–2027, Horizon Europe, and the postulates of the Common Agricultural Policy in this area.
2. *Patent Activity in the Agri-Food Sector and Smart Specialisations of Polish Regions* (Krzysztof Klincewicz), in which these issues are discussed against the background of smart specializations of Polish regions, defined in the process of implementing European Structural and Investment Funds 2014–2020. Patents submitted to the Patent Office of the Republic of Poland in 2006–2015 encompassed various agribusiness areas, i.e. the production of machinery for agriculture and forestry, pesticides and agrochemicals, food, beverages, packaging and tobacco products. At the same time, the adequacy of priority areas selected for research and innovation investment, as defined in regional smart specialization strategies, was verified in the light of patent activity of individual voivodships. This analysis indicates clear discrepancies between the selected priorities and the scale of patent activity in voivodships.
3. *Technological and Organizational Innovations in Catering Businesses* (Agnieszka Tul-Krzyszczuk, Jerzy Gębski, Agnieszka Maciąg) discusses selected aspects of technological (including light, organic and regional food) and organizational innovations, e.g. the reorganization of organizational structures, new strategies, marketing development and cheaper supply sources. It transpires that these innovations depend to a large extent on the financial situation of the surveyed enterprises and the scope of their activity.
4. *Changes in Self-Sufficiency in Beef and Pork in Selected Central and Eastern Europe Markets* (Sebastian Kubala), in which technical and economic self-sufficiency is discussed. Research results indicate a high degree of diversification in terms of self-sufficiency in Central and Eastern European countries. Poland, Lithuania and Estonia have the safest beef policy; Hungary and Estonia are leaders in terms of pork policy.

Domestic production of beef satisfies the demand in the majority of Central and Eastern European countries, while the domestic production of pork does so only in Poland. The lowest degree of self-sufficiency in terms of beef and pork production has been found in Bulgaria and Slovakia, and as regards pork alone – in Slovenia.

5. *Multifunctionality of Farms – the Effects on Land Use Change* (Zofia Sawicka, Natalia Ratajczyk), which points to the need to adopt a different approach to agriculture and rural areas, based on balancing their productive, ecological, sociological and cultural functions. Changes in land use make it possible to manage different types of natural resources in such a way that they can be used to provide ecosystem services which, in turn, have a positive impact on a number of important environmental factors, including climate change, water balance, biodiversity and soil quality, resulting in a sustainable development of rural areas.
6. *Active Role of the State in the Agribusiness Area as Illustrated by the Regulations Governing the Possession of and Trading in Agricultural Properties* (Katarzyna Czerwińska-Koral), which discusses the role of agricultural policy in the field of managing farmland, including its use for agricultural and non-agricultural purposes. The author argues that, through appropriate legal regulations, the state ensures the suitable management of agricultural land, while ensuring the country's food security and, at the same time, affecting the decisions of economic entities regarding the ownership and trade in agricultural real estate.
7. *Management of Trade Accounts Receivable as a Critical Success Factor for Agricultural Suppliers* (Piotr Korneta), examining correlations between the value of receivables from farms, and the profitability and sales growth of their suppliers. According to research, Polish enterprises providing farms with goods and services should strive to reduce the value of their receivables, as it would improve their profitability without causing a significant drop in sales revenues. Long payment periods, combined with the many risks that Polish farms face, make receivables management a critical factor for companies supplying agricultural holdings.

## 5. Conclusions

Considerations presented in this article confirm that agribusiness ought to be analysed systematically, taking into account synergies between its individual links: from the use of agribusiness resources, to the management of agricultural products, to the range, quality and healthfulness of food products. The agri-food policy plays an important part in these processes. It should make allowances for the conditions in which agribusiness entities operate and contribute to the development of activities based on the integration and networking of individual entities, starting at the local

level. This policy should create a framework that favours agribusiness management and influences its structural changes. Scientific research may serve as a useful tool for these changes.

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