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CONSUMER FOOD COOPERATIVES AS COMPLEX ADAPTIVE NETWORKS – THE CASE OF FIVE COOPERATIVES FROM POLAND[1]

KONSUMENCKIE KOOPERATYWY SPOŻYWCZE JAKO ZŁOŻONE SIECI ADAPTACYJNE – STUDIUM PIĘCIU KOOPERATYW Z POLSKI

Key words: consumer food cooperatives, cooperatives, consumer cooperative principles, complex adaptive networks

Słowa kluczowe: konsumenckie kooperatywy spożywcze, zasady spółdzielczości konsumenckiej, złożone sieci adaptacyjne

JEL codes: Q13, L14

Abstract. This paper is an attempt to present selected Polish consumer food cooperatives as the complex adaptive network. Based on the literature review and structured questionnaire, their compliance with consumer cooperative principles and attitude of the members towards these principles were investigated. It is argued that due to their voluntary character based on networking activities they are subject to adjustment processes. These processes, under the umbrella of the democratic governance, are focused on using these principles as adaptive mechanism.

Introduction

The cooperative movement materialize the advantages of a collective action in a pursuit of a common goal. Zeuli Kimberly and Robert Cropp [2004] argue that cooperatives existed as long as the mankind. During long history of human cooperation it was manifested in different forms, that can be viewed from several perspectives: economic, social, statistical, cultural, etc. One of primarily undertaken are joint actions for collection and distribution of food. Nowadays such actions are manifested in the development of the consumer food cooperatives, which especially in developed countries, are experiencing a renaissance due to the consumer higher needs for superior food [Żakowska-Biemans, Tekień 2017] or their environmental awareness [Olander, ThØgersen 1995]. Their development is very often driven by the social media [Heller, Parasnis 2011].

The consumer food cooperation is organized in different forms, which compromise interests of the cooperating individuals in a constructed network. As shown by Alexander Osterwalder and Yve Pigneur [2010], most organisations are not based on pure market relationships. They have varying arrangements for control, coordination and incentives. Additionally there are varying mechanisms, which are efficient for dealing with activities, diverse interests, which need alignment, and situations where information is much asymmetric. The business model of any organization, including cooperatives, refers to how it creates, delivers, and captures value, in economic, social, cultural or other contexts. Because the contexts are changing due to internal and external dynamics, also the food cooperatives are adapting to these changes in the search for value securing and growth and through becoming networks with inherent adaptation mechanisms [Streed et al. 2017].

In Poland the consumer food cooperatives in its today's form exist since 2010 [Bilewicz, Śpiewak 2015]. Initially, around 30 cooperatives were founded in Poland, and by 2017, about 15 of them are still active in the country. After initial rapid expansion the consumer food coop-

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eratives came to a stagnation in terms of membership and they are constantly trying to adapt to the Polish food market and evolve according to its changes. It can be argued that the existence of consumer food cooperatives as alternative to market structure organizations is crucial for development of diversity that meets changing consumer's needs. Although there are researches done on Polish food cooperatives, they phenomena is analyzed from social [Bilewicz 2017, Bilewicz, Śpiewak 2015] or anthropological [Potkańska 2013] perspectives. There are small attempts made to present them from more organizational or economic perspectives. They have never been analyzed from industrial organization point of view as adaptive networks.

This paper objectives are twofold. Firstly it aims to review the literature concerning cooperatives' defining principles and present them in the context of complex network. Secondly, it makes and attempt to examine the adherence level of Polish consumer food cooperatives to the cooperative principles.

Material and methods

The presented research is based on the primary and secondary data sources. It is applying the heterodox economic concepts into the analytical framework of complex adaptive system theory and contextual analysis driven by the holistic approach of deductive and descriptive reasoning. A part from the literature review the structured questionnaire was developed and used as a basis for direct interviews that were conducted in 2016 and 2017 among 223 members of five largest consumer food cooperatives in Poland (Grochowska, Dobrze, Warszawska, Wawelska and in Łódź). Due to the non-linear distribution of the responses a median was used in the analysis.

Results and discussion

Defining principles and the need for adaptation

In order to classify the consumer food cooperative it is important to present the definition of such organization. The definition of such economic entity should be derived from the overall definition of cooperative. A cooperative, according to The UN Committee for the Promotion and Advancement of Cooperatives (COPAC) [COPAC 2012], is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. Though the structure and activities of specific cooperatives may vary, most of their activities are governed by these guiding principles that are set upon mutual agreement. Arthur O'Sullivan and Steven Sheffrin [2003] define a consumer cooperative as a cooperative business owned by its customers for their mutual benefit. It is a form of free enterprise that is oriented toward service rather than pecuniary profit. Consumers' cooperatives often take the form of retail outlets owned and operated by their consumers. However, there are many types of consumers' cooperatives, operating in areas such as health care, insurance, housing, utilities and personal finance [Novkovic 2008]. Based on the above characteristics one can define the consumer food cooperative as a formal organization owned and managed by consumers in order to fulfill their needs for food purchase as a mutual benefit from joint actions.

While there are several approaches to classification or division of the cooperatives, when it comes to the cooperative principles, practically all scholars mention as the main one the so called "Rochdale principles" [Oczkowski at al. 2013, Fairbairn 1994, Zeuli, Cropp 2004]. These principles are: 1. Voluntary and open membership; 2. Democratic member control; 3. Member economic participation; 4. Autonomy and independence; 5. Education, training and information; 6. Co-operation among co-operatives; 7. Concern for community. The Rochdale

Cooperatives may add to the Rochdale principles also certain additional ones. Edward Oczkowski and his colleagues [2013] mention such additional principles as: (a) Provisionality, which means that if the decision is made today, it's for today, and one don't have to stick to

it forever; (b) Participation which means that decisions are made at the lowest possible part of the organization; or (c) Commercial approach which shift cooperative to be commercially driven organization. Regardless the agreed catalogue of driving principles the cooperative's activities are changing trying to adapt to the needs of its members and to the transformations of the environment they are operating in.

Therefore the principle of Provisionality becomes one of the main guaranteeing the functioning and long lasting of the organizations tied with the seams of voluntariness and democracy. Especially with regard to the consumer food cooperatives, where the food as a subject of exchange and service has so many close substitutes. That makes the consumer food cooperatives as one of the most susceptible to changes and adaptation.

Adaptation to a changing environment is the central challenge for organizations [Williamson 1991]. Adaptive capacity can be located in the market, where price signals are understood to serve the (anonymous) coordination purpose, or in the internal organization, where coordination among actors is deliberate, and often hierarchical. Oliver Williamson considers networks to belong to a third, 'hybrid' form of organization, and finds them particularly effective under conditions where vulnerability matters. Cooperative organizations are developed as networks, in order to reduce transaction costs, to facilitate knowledge transfer and exchange of resource [Bijman 2005]. Research in social networks demonstrated that network forms allowed them to acquire knowledge, gain legitimacy, and improve economic performance [Kogut 2000, Brunori, Rossi 2000]. In the transaction cost framework, networks are not considered unique organizational forms, but rather a diverse collection of relationships [Renting et al. 2003]. Networks are created to adapt to changes in social and economic environments. O. Williamson argues that in order to safeguard exchanges, support adaptation, and coordinate transactions, networks rely on "three pillars": pooling of resources (for example joint investments), coordination through contracts, and combinations of competition and cooperation [Czakon 2010]. On the other hand it needs to be emphasized that for the consumer food cooperatives the balance between the use of different mechanisms – norms, hierarchy, and networking is playing a crucial role. When it is shifting according to the changing environment, subsequent organizational changes occur, that can strengthen or weaken the character of cooperative organizations [Mikami 2010]. And the complexity of the consumer food cooperative results from the inter-relationship, inter-action and inter-connectivity of its elements (members) within the economic environment, namely non-members, suppliers, government etc. Complex adaptive networks from economic perspective are characterized by being constantly subjected to shocks, both exogenous and endogenous, that affect its short-term movements [Miller, Page 2007].

Changing attachment to principles of Polish consumer food cooperatives

Based on the conducted interviews the major five Polish food cooperatives were assessed on their attitude to the Rochdale principles as well as on changeability of adherence to these principles. Three of the analyzed cooperatives (Warszawska, Wawelska and in Łódź) are exclusively established for food purchasing for its members. The remaining two (Grochowska and Dobrze) have expanded the scope of their activities towards multifunctionality aiming to satisfy other than "food shopping" needs. On the graph 1 the level of adherence to the cooperative principles of analyzed Polish consumer food cooperatives was assessed.

The interviews results showed that while all co-operatives follow the Rochdale Principles, there are certain shifts of accents on principles amongst them. The Cooperative Grochowska is the only one that entirely dismissed one of the principles, restricting the membership only to those approved by management. In this way it wants to eliminate members who do not contribute to cooperative's development or can be potential trouble-makers. For three out of five cooperatives "Independence" is one of the most important principles. At the same time "cooperation of the co-operatives" is amongst priorities for only one analyzed cooperative. That is due to the fact

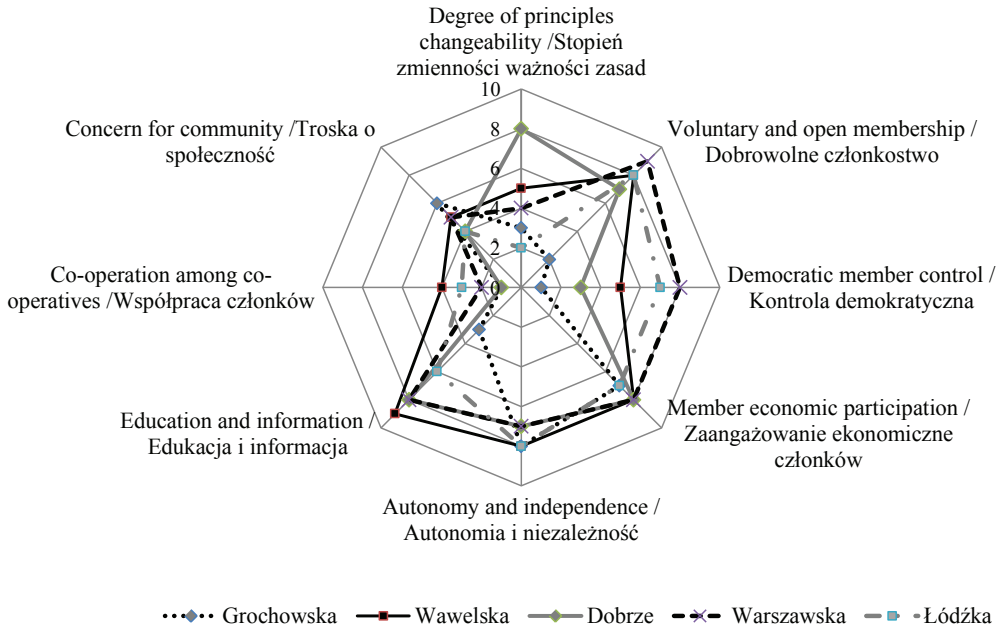

Figure 1. The level of adherence to the cooperative principles by 5 Polish food cooperatives (median of answers, n = 223)
Rysunek 1. Poziom przestrzegania zasad spółdzielczych przez 5 polskich spółdzielni spożywczych (mediana odpowiedzi, n = 223)
Source: own elaboration based on the interviews
Źródło: opracowanie własne na podstawie wywiadów

that cooperatives in Poland are still rather small and not up to the level of cooperation amongst themselves. On the contrary they are still more or less fighting for their share of the food market and are still in process of organizational formation. As for the "Democratic member control" principle, those cooperatives with more formalized and structured management showed better performance in general. The principle of "Member economic participation" has been listed as the most important today for all researched cooperatives. The analysis show that while the role of some particular principles may shift for Polish consumer food cooperatives, the importance of the principles themselves remain undoubted. The average changeability of principles was assessed on ca. 50%.

Conclusions

The consumer food cooperative is as a formal organization owned and managed by consumers in order to fulfill their needs for food supply and mutually benefits from other joint actions. As the alternative to the market forms of the organization, due to their voluntary character based on networking activities, the consumer food cooperatives are subject to adjustment processes resulting from both exogenous and endogenous sources. These processes, under the umbrella of the democratic governance, are focused on using the principles as adaptive measures. The guiding principles are however not eliminated according to the provisionality rule if they do not comply with current conditions. It was found that the agreed catalogue of principles is accepted and valid all the time. The principles are applicable with different strength depending on the needs upon mutual agreement.

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Streszczenie

Dokonano prezentacji wybranych polskich konsumenckich kooperatyw spożywczych jako złożonych sieci adaptacyjnych. Na podstawie przeglądu literatury i strukturyzowanego kwestionariusza ankiety zbadano zgodność ich funkcjonowania z zasadami spółdzielczości konsumenckiej, określając postawy ich członków względem tych zasad. Stwierdzono, że ze względu na dobrowolny charakter kooperatyw oparty na działaniach sieciowych, podlegają one procesom dostosowawczym. Procesy te, w ramach działań demokratycznych, koncentrują się na wykorzystaniu zasad jako mechanizmów adaptacyjnych.

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