

INNOVATIVE AND SOCIALLY RESPONSIBLE CONSUMER BEHAVIOUR IN PARADIGM OF CIRCULAR ECONOMY – A RESEARCH MODEL

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ABSTRACT

The following paper is innovative and based on the premise that consumers play a vital role in the development of the economy in Poland. Its structure, in addition to introduction and summary, consists of two parts: cognitive and practical. The research question is: Can consumer influence the implementation of the principles of circular economy in Poland towards their faster and more efficient application? The aim of the paper is to offer a theoretical model for research and stimulation of changes in consumer behaviour towards an innovative and socially responsible consumer action (CnSR). We used experimental, descriptive model and visual research methods. The paper is normative.

Key words: CnSR, tacit knowledge, quadruple helix, platform

JEL codes: J24, O31, O35, O36, Q01

INTRODUCTION

Consumer behavior has been a topic of interest of social sciences, including economics, especially since the mid-XXth century but still requires more thorough research. This applies to, among others, the ability and capacity of consumers for innovative and socially responsible behavior. The dynamic changes of technological, economic and demographic conditions and the natural habitat together with increasing and evolving human needs resulted in consumer behavior, which is an interdisciplinary category, new research hypotheses can be made. Especially since implementing the rules of triple-balanced economy (economically, socially and ecologically) in European Union countries, creates a new context for researching the role of consumers in that process. Furthermore, attempts are made to implement the circular economy to the practice of linear economy, as the developed model of stable and

balanced economy [Zalewski and Skawińska 2019] question arises, as a research issue, can consumers influence the implementation of the principles of circular economy in Poland toward their faster and more efficient application?

It is worth noting that Poland still belongs to countries catching up with the leading innovative economies [European Innovation Scoreboard 2018, Global Innovation Index 2018]. In spite of support via various governmental and international programs, vertical and horizontal cooperation of economic entities, it still remains at a low level and the cooperation effects in the form of innovation and commercialization of research results are unsatisfactory. Therefore, can active inclusion of consumers in the cooperation, forming a quadruple helix, help to overcome/decrease the barrier to innovation growth in Poland, towards development of circular economy? How to change consumer attitudes to be more pro-innovation? So far, in the

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light of literature studies of the research subject, the role of consumer within these processes was treated marginally while the information era lifted the value of innovation activity, which can cause increase of new non-economic stimuli, increasing cooperation and its effectiveness. Searching for answers, the following hypothesis was formulated: the shaping of innovative and socially responsible consumer behavior for development of circular economy in Poland requires a system of educational and institutional support. Its verification is difficult since it applies to phenomenon shaped to a large extent by nonmaterial unmeasurable factors, but an attempt can be made to see how it works as a social experiment. According to J. Pieter “the basic rules for experimenting are the same everywhere” [1975]. They include an active intervention of researchers into the research subject, in this case with the assumption of making changes in the behavior of persons.

The key aim of this paper is to offer a theoretical model for research and stimulation of changes in consumer behavior towards an innovative and socially responsible consumer action (CnSR) for the development of circular economy in Poland. A supplementary aim is to awake reflection over the need to finance experimental research in this area. In carrying out the work, experimental, descriptive, models and visual research methods were used. The paper is normative.

CHANGE IN CONSUMER BEHAVIOUR IN THE CONCEPT OF CIRCULAR ECONOMY

Basic terms and their interpretation

A characteristic feature of economic papers is the occurrence in their text of multiple meaning requiring explanation. The first is “circular economy”, characterized by closed cycle and applying to all levels of economic activity. It includes all stages of process and product life cycle as well as the process-environment-economy interaction (Fig. 1). It is a system of saving and recovery, in which inputs on entry and waste on exit, emissions and energy losses are limited via slowing and reducing energy and circulation [Geissdoerfer et al. 2017, Sariatli 2017]. Its idea is also included in the theory of economic moderation and the theory of balanced consumption [Kołodko 2014, 2017].

The development of circular economy in Poland is in line with the support policy of the European Union [Komunikat Komisji Europejskiej 2014, European Commission 2017]. However, the level of knowledge within the Polish society about implementation of the theoretical assumptions of circular economy and its effects is still quite low, in spite of the European Commission passing normative acts that are in force in the European Union [Zalewski and Skawińska 2019].

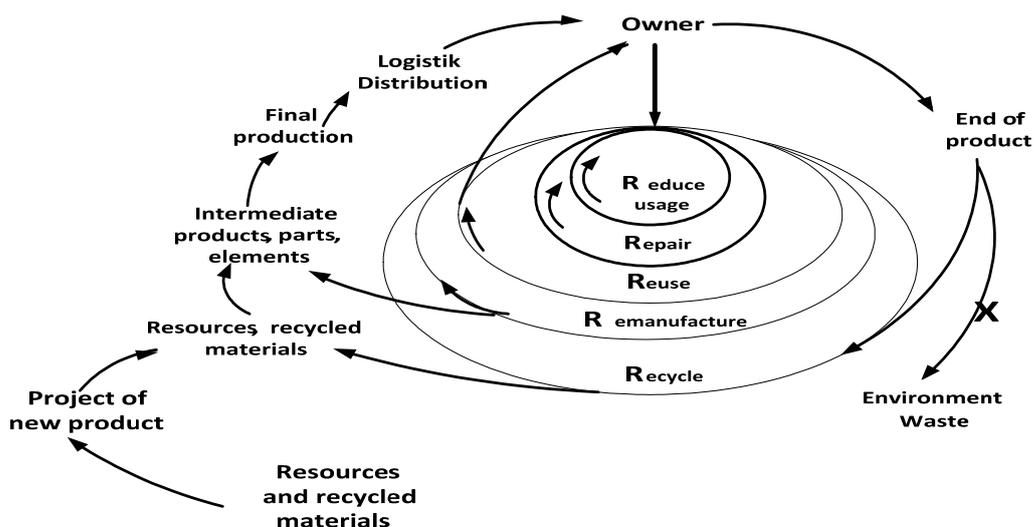


Fig. 1. Model of circular economy

Source: own drawing.

In 2013 in Poland, in response to postulates of the Education Committee “The Strategy for Innovation and Economic Effectiveness” was prepared and in 2016 “The Roadmap of Transformation Towards a Closed Loop Economy”. Their application is to constitute “a green path” in production and consumption to increase effectiveness of usage of natural resources and raw materials [Gołębiewski 2019]. If we want to speed up the progress from linear economy to circular economy we should expect changes in consumer behavior. Innovation development in the context of building circular economy ties in with its intelligent development, which requires absorption of intellectual potential of the whole society, changing social attitudes towards more socially responsible and cultural changes [Korhonen et al. 2018]. So far, changes in consumer behavior were seldom included/referred to in the definition of circular economy. Among 114 definitions described in literature, only several of them had such reference [Kirchherr et al. 2017].

The next term requiring explanation is “consumer behavior”. In the neoclassical sense, economists assumed that behavior of society units in the process of fulfilling needs, i.e. maximizing expected value, is rational (neoclassical paradigm). This view has been questioned by other trends (e.g. new classical economics, complexity economics) including, first of all behavioral economics. The theory of needs and the theory of consumer behavior is under constant development.

Recently, hints of redefining the neoclassical approach to rational behavior of entities in economy were presented by E. Skąpska [2019]. She correctly assumes that knowledge possessed by a human forms the basis for choosing the means for the individual fulfillment of his needs, in accordance with his own value system and preferences. During the process of choice, emotions disturbing “the process of perception and logical reasoning” and different activities in information seeking, which leads to irrational decisions. The next indicator of the degree of rationality in consumer behavior, apart from knowledge, is the ability to perceive reality and social context, mainly formal and informal institutional systems. In terms of social rationality, the quoted author postulates that the aim of economy is the fulfillment of economic and

beyond economic needs of society, and the criterion for rational choice is quality of life [Skąpska 2019]. This should be compared to the proposed model of circular economy, development of which is to improve the quality of life of current and future generations. Therefore, consumer behavior can be deemed socially rational, if his individual actions are geared towards realization of this goal.

It should be remembered, however, that rationality of consumer behavior is limited. Each person’s choices are based on different and varied conditions. Therefore, how can risk and uncertainty be minimized in implementing the rules of circular economy? It can be done by decreasing the coherence gap between the individual goal of consumer (obtaining own “egoistic” advantages) and social goal. They can be reached as a result of constant growth of knowledge capital and development of intellectual potential of consumers via educational system, since incomplete knowledge about economic processes limits the possibility of reaching socially responsible decisions. Therefore, consumer socially responsible behavior (CnSR – Consumer Social Responsibility) is the next term requiring interpretation from the understanding adopted in this paper.

So far, in literature, the idea of social responsibility has been analyzed in relation to businesses (CSR – Corporate Social Responsibility), as an important tool for creating their competitive advantage. The overall/summary definition set/outlined by the European Commission in 2007 was formalized in the ISO 26000 norm, adopted in 2010, and is applied to all organizations. Its implementation by companies in Poland is becoming a fact and it represents an evolution of business goals from financial ones towards maximizing value to all interested parties. Many reports and research indicate that these activities are still uncoordinated and often selective. Recently, some efforts appeared as to researching consumer social responsibility (CnSR) in the context of CSR [Devinney et al. 2006, Szwajca 2018] and apply only to the phase of resource usage. This paper, however, adopts a wider perspective of consumer social responsibility and it means their voluntary behavior (in contrast to behavior forced by law) in terms of all areas and stages of decision making outlined later in article. These include:

- limiting purchases to those that satisfy necessary needs, with preference to high quality and fair trade practices,
- decreasing social costs of environmental protection via reducing pollution, waste levels (illegal landfills) and violation of someone else's property,
- getting rid of noise and peace disturbances in surroundings,
- cooperation engaged in protection of natural resources and care for natural environment in local communities (e.g. looking after green areas),
- preference for ecology in market decisions of consumers and households, closed cycle of resources, and quality and respect for common resources,
- complying with ethical norms and safety regulations towards others in business dealings, including limiting activities in grey areas,
- investment in knowledge acquisition, competencies and abilities to increase the quality of interpersonal communication, conscious choice and product usage and the resulting consumer rights.

Some of the mentioned activities (characteristics) of consumer social responsibility are outlined by L. Jeseviciute-Ufartiere [2017]. It is a result of growth in consumer social capital, motivation and entrepreneurship in innovation development, integration of consumers around common values, which increases respect for norms and values and improves relations with others.

Areas and steps of innovative and socially responsible consumer decision

The behavior of society and its effects can be considered within various areas of management. In literature, marketing research dominates that deals with market customer behavior. In this paper, the scope is widened to include 3 areas: market, household and natural environment.

There is interaction of indirect effects taking place between the 3 area, due to direct consumer activities in those areas. Consumer behavior research, from the perspective of its effect on development of circular economy, should encompass all stages of decision making process that has to do with fulfillment of needs. Note that the category of needs is under evolution as confirmed by further development of J. Maslow's

pyramid of needs by contemporary representatives of social sciences [Miller-Zawodniak 2012]. There is indeed a spiral of expectations by society for new products, which is utilized by industry and trade. This increases the demand for energy and resources and problems with polluting natural environment [Global Circularity Report 2018].

Thus, using not only new innovative factors in production and supply, has become urgent, but also, innovative solutions in the area of demand and regulations, which favor improving life quality via reducing the existing social and ecological costs that arise in linear economy, have become important. New customer needs are also created by industry 4.0 and G5 communication. Modification of consumers behavior in this context is necessary and possible as a result of their new needs, greater market and ecological (environmental) awareness, the necessity to form social ties, co-creation, greater social and geographical mobility, increased concern for health and desired social attributes of products. This paper assumes that "a need is a person's psycho-physical state that expresses as a feeling of lack or desire for a thing or a state (conditions, circumstances)" [Cybulska 2018], and fulfillment of needs is a form of restoring external and internal balance. If the way of fulfilling is not going to be contrary to realization of circular economy goal, we can consider that consumer behavior is socially responsible.

In literature, specifying the stages of consumer behavior on the market takes place always only until the post-sale period [Przybyłowski et al. 1998]. This stage is understood as consumption and reflection. A representative of such a view is A. Barska who states that "Consumer behavior includes thoughts and feelings experienced by persons and activities undertaken by them in consumption process. They are implied by many factors from environment which affect them." [Barska 2019]. Such view is incomplete for achieving the research aim proposed in this paper.

We assume a wider understanding of consumer needs in the 21st century, which must be accompanied by innovative and socially responsible consumer behavior in the development of circular economy. Therefore, presented below are 5 integrated steps of consumer behavior.

First, there is the time that awareness of a need takes place, called “problem identification”, and preparation for undertaking socially responsible decision about the way this need is to be fulfilled as a result of identifying/exploring information sources and situational factors. The second step is the conscious decision to purchase the product superseded by comparing alternative ways of meeting the need. The next step, so called post-purchase, is the time of using/consuming the purchased product, any cognitive dissonance, satisfaction assessment as to obtained value and possible decision to return the product, exchange, file complaint etc.

It is a conscious joining in a socially responsible process of management. In the 4th step, there are activities concerning utilization of post-consumption waste (fragmentation, segregation and recycling). Furthermore, assuming that these behaviors should be innovative towards the needs of circular economy development, we added another step, 5th, which represents creation of new ideas, innovative solutions by consumers as to utilization of waste in the next life-cycle of processed products. In the light of foregoing considerations, we suggest adoption of pro-innovative consumer attitude as the next characteristic of the widened CnSR concept.

FORMATION OF INNOVATIVE AND SOCIAL RESPONSIBLE CONSUMER BEHAVIOUR IN THE DEVELOPMENT OF CIRCULAR ECONOMY

Shaping of consumer behavior, as previously mentioned, requires interdisciplinary approach to changes in the hierarchy of consumers value system and motivation in their behavior, means for the growth of competences and awareness and social capital, as well as cultural growth. Previous research by the authors considered the thesis of primary influence of social capital on human behavior, and the development of their cooperation and forming long-term relations with other subjects in a triple helix model [Skawińska 2012]. The importance of the research topic is increased by the fact that rules of circular economy are still little known in the Polish society, while their implementation enables continuity of development, thus it is necessary for future. Therefore, we propose a social experiment

with inclusion of consumers active cooperation in the development of such economy in Poland, via the following four phases:

1. Transfer of knowledge from the science sector to deliberately selected groups/communities of consumers, encompassing theoretical aspects of circular economy and determinants of its development, for shaping innovative and socially responsible consumer behavior (education process).
2. Acquisition of insider/implicit/non public knowledge from consumers, in terms of factors influencing changes in their market behavior, in the process of processing and usage in households, and behavior in natural environment (research process).
3. Creating new technology – Internet platform, as a means of communication for transferring the insider/implicit/non public knowledge from consumers to other subjects in the quadruple helix model (application process).
4. Dissemination of the new technology/platform for development of cooperation and participation of consumers in building relations with other entities in the economic environment and science sector within the quadruple helix (implementation process).

During phase 1, there will be sharing of knowledge by science sector employees, specialists and equipping of recipients in skills allowing for development of intellectual capital resources. Delivery of the education function by science representatives enables acquisition of new knowledge by consumers, increasing their awareness and rationality of behavior, which may induce them to open to new innovative ideas. Transfer of this knowledge from the science sector regarding the theory of circular economy and its best practices in the world to consumers is to stimulate creativity, entrepreneurship and innovation towards development of circular economy. Increased awareness in this field is a key determinant in raising cooperation skills levels, predisposition to cooperation, propensity towards risk-taking, modification in value system hierarchy and for activity in forming relations with participants of the quadruple helix. At this point, it should be explained that introduction of consumer in the triple helix model forms a quadruple helix that has a pyramid structure, in which innovations are in the center (Fig. 2).

Familiarity with the circular economy theory, process of innovation diffusion and adoption, has a significant influence on its perception, acceptance of the need for development and on reducing the level of neophobia with regard to the world latest achievements as to this model of management. This stage will enable creation of leaders of change in consumer behavior.

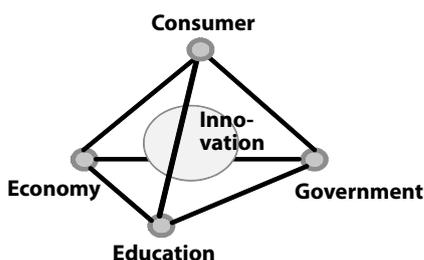


Fig. 2. Quadruple helix model
Source: own drawing.

The second phase will be achieved as a result of generating new ideas, during incubation of the insider knowledge of consumers. It has to do with acquiring new knowledge in terms of innovations for circular economy, assuming a holistic approach to researching intellectual capital (meta typology of intellectual capital) [Zalewski 2015]. Acquisition of insider knowledge about consumer behavior and their changes in socially responsible direction: a) on the market (purchasing behavior), b) in households (usage), c) in natural environment (work and rest) will allow for understanding their causes of behavior, actions, attitudes and intentions. The research will look for new criteria of choice

making, supply of new ideas and opportunities for their implementation. Their aim is to discover and explain unrecognized opportunities in a given cultural and environmental consumer context, and factors in the area of cooperation with respect to circular economy.

The third phase is creation of an Internet platform which should solve communication requirements of users in terms of knowledge and information exchange, associated with the needs of circular economy development. It will ensure intelligent mobility in passing knowledge about circular economy from science and reporting of new ideas by consumers from a long-term perspective. Further, it will enable shaping of pro innovative behavior of persons that are aware, convinced and oriented on building relations and cooperation between science, consumers and economic environment towards innovation growth. This will allow for creation of networks of innovative consumers (clusters), and the interaction taking place in the cooperative activities of entities in the quadruple helix will lead to increased innovation for development of circular economy.

The last, fourth phase will be carried out via implementation of solutions leading towards stimulating innovation and cooperation between consumers, science, producers and other entities within the quadruple helix. This will enable refinement of ideas important to the concept of circular economy development. It should be remembered that shaping innovative and socially responsible behavior is a function of time. Knowledge awareness raising represents a stimulus/trigger for its recipients, to reflect on the necessary cooperation with other entities within the economic environment

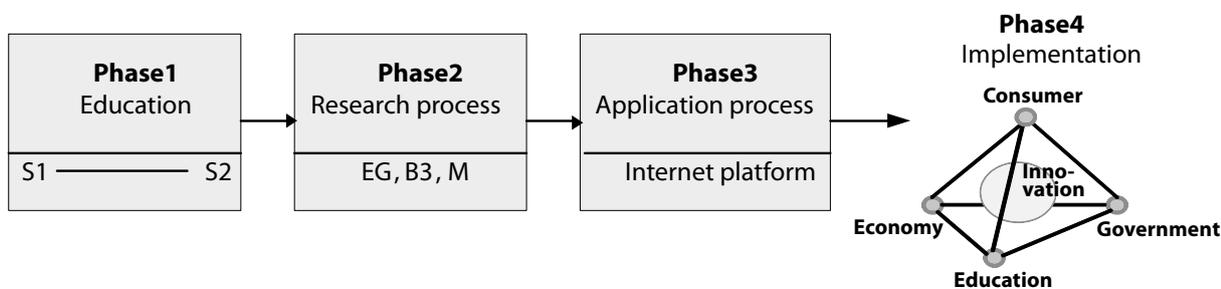


Fig. 3. Theoretical model of shaping changes in socially responsible consumer behavior (CnSR)
Source: own drawing.

and the need to build relations with them. This will be possible thanks to the Internet platform. Coherence of the presented research stages and development of innovative and social behavior of consumers, allows for a model representation (Fig. 3).

The outlined research proposition represents a departure from the traditional ways of subject behavior towards an active participation in building innovative circular economy in Poland. Key role in carrying out the aforementioned stages will be played by the application methods used in achieving their objectives. The selection of consumer communities/groups, as well as qualitative methods in 1 and 2 stage applied in the model shown in Figure 3, and the statistical methods used in compiling their results should be flexible, contingent on the potential of the scientific unit/entity undertaking the research.

It can be proposed to use the method of conventional lecturing in phase 1, and in phase 2 – questionnaires, focus groups and in-depth interviews, panel discussions groups, diagnostic simulation game method (DSGM) and from among statistical methods in complying results – the method of key components, classification and correspondence. In creating clusters of active consumers (phase 4) it may be helpful to use the method of opinion leaders and animation.

SUMMARY

The authors take on a very important scientific issue in the context of urgent need for development of circular economy. Firstly, they presented a holistic and reconstructed definition approach to circular economy and the concept of consumer social responsibility. Attention was paid to shaping new contemporary individual and social needs, as well as to, presented in the paper, the 3 areas and all phases of consumer decision making in the process of husbanding together with their interpretation. Next, the authors propose a social experiment with the active inclusion of consumers in cooperation with other entities in a quadruple helix model, via 4 stages including the following processes: education (knowledge transfer), research (insider knowledge acquisition), application (creation of Internet platform) and implementation, i.e. building relations with entities in economic and scientific

environment. In this experiment, the authors assume an active intervention of science representatives in order to overcome the gap existing between the current and desired customer behavior, which is indispensable for development of circular economy in Poland. The added value of this paper/research to the existing knowledge relates to:

- a new proposition for defining social responsibility of consumers including a widened scope of decisions and innovative behavior (CnSR)
- creation of a theoretical model for shaping changes in consumer behavior, encompassing 4 stages in research of a social experiment character in relation to CnSR, using a quadruple helix model
- indicating a way of shaping change leaders in consumer behavior for development of circular economy
- undertaking of discussion as to development of consumer needs and growth factors in rationality of consumer behavior, and their change in the context of circular economy.

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INNOWACYJNE I SPOŁECZNIE ODPOWIEDZIALNE ZACHOWANIA KONSUMENTA W PARADYGMACIE GOSPODARKI CYRKULARNEJ – KONCEPCJA BADAŃ

STRESZCZENIE

Praca jest nowatorska, zakłada się w niej istotną rolę konsumentów w rozwoju gospodarki w Polsce. Strukturę pracy, oprócz wstępu i zakończenia tworzą dwie części: poznawcza i aplikacyjna. Problem badawczy stanowi pytanie: czy konsumenci mogą wpłynąć na szybsze i bardziej efektywne wpajanie zasad gospodarki cyrkularnej w naszym kraju. Celem podstawowym pracy jest zaprezentowanie teoretycznego modelu badań i stymulacji zmian zachowań konsumentów w kierunku innowacyjnych i społecznie odpowiedzialnych (*CnSR – Consumer Social Responsibility*) dla rozwoju gospodarki cyrkularnej w Polsce. Cel pracy wykonano z zastosowaniem metody eksperymentalnej, opisu, modelowej i wizualizacji. Artykuł ma charakter normatywny.

Słowa kluczowe: CnSR, wiedza niejawna, poczwórna helisa, platforma