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Construct of measuring of sustainable consumer behavior

Abstract

The article is devoted to the study of sustainable consumer behavior, which is a global consumer trend and is increasingly manifested in various consumer markets around the world. A review of the literature showed that there is still no universal approach and a scale for the measuring of the sustainable consumer behavior, which does not allow to assess the changes in consumer behavior, as well as to conduct the comparative studies of the sustainable behavior in the different markets. The aim of the study is to develop a construct of sustainable consumer behavior. Research methods include the literature overview and the existing scales analysis. To create the construct of sustainable consumer behavior was used card sorting method (14 individuals) and 23 semi-structured interviews of experts. The final construct included 3 factors: responsible consumer behavior, environment sensitive consumer behavior, information culture and security behavior.

Key words: sustainable consumer behavior, measuring of sustainable consumer behavior, scale for sustainable consumer behavior

1. Introduction

The term “sustainable development” was coined in the report “Our Common Future” as the “development that meets the needs of current generations without compromising the ability of future generations to meet their own needs” (WCED, 1987). The modern understanding of sustainability encompasses environmental concerns, social issues and economic growth (Obermiller et al., 2008). Sustainable development goals (SDGs) introduced by the UN for the period 2016-2030 include ensuring sustainable consumption and production patterns (UN, 2016). The majority of countries entered into a race for achieving sustainable development goals tracking their progress in, i.e., SDG Index and Dashboards Report (Sachs et al, 2017).

However, though the mankind understands the importance of sustainable development for its mere future survival and many modern innovations strive to find a balance between economic and environmental concerns, still the progress in solving the problems of inequality and environmental pollution and achieving sustainability cannot be evaluated as fast throughout the whole world. The priority of the short-term efficiency, the phenomenon of philosophical presentism, the aspiration to shift environmental damage to other countries, other social strata or other generations are still very wide spread (Vaschalova, 2018). Under these conditions, sustainable development should be simultaneously supported by the governmental and NGO pressure, companies’ activities and consumers’ choices. The latter can be labeled as sustainable consumption that is a consequence of the sustainable consumer behavior.

This article is devoted to analyzing the directions and components of sustainable consumer behavior. To be able to influence consumer behavior and to segment customers based on their attitudes to the sustainability issues, it is necessary to measure their present inclination to sustainable consumption. It is also important to understand if sustainable choices on one market influence the propensity to sustainable consumer behavior on other markets. The aim of this work in progress is to develop and test the scale measuring of sustainable consumer behavior.

2. Theoretical background and literature overview

Sustainable consumption is supposed to substitute consumerism, the religion of the second half of the XX century, as it was stated by Steven Miles (2009). Consumerism started as a movement for customer rights and became an incentive to increase service quality and provide freedom of choice. On the other hand, consumerism entails an endless quest for material values, fast obsolescence of products, addiction to brands and shopping process, perception of other people and self through conspicuous consumption of products and services. Product reliability and durability as well as household savings for the potential future needs are sacrificed to the current over-consumption (Campbell, 1994).

The main features of sustainable consumption as opposite to consumerism can be summarized as following (Barr & Gilg, 2006; Peattie & Collins, 2009; Gogia & Sharma, 2012; Briz & Ward, 2009; Hughner et al., 2007; Kavaliauske & Ubartaite, 2013): support of the product life cycle, focusing on long-term use and repairs if necessary; rational use of goods without overconsumption of any kind; multifunctionality of goods, expansion of possible spheres of application; presence of the manufacturer's price premium which is accepted by the consumer; goods and services popular regardless of fashion trends; emphasis on retaining existing customers; intensive way of development of the company; the main focus in marketing activities is not on pre-buying and buying phases of consumer behavior

but the phases of use and post-use of the goods, since these two stages have the greatest impact on the environment.

Sustainable consumption should be understood as consumer behavior aimed at meeting the current needs of the individual without harming the needs of future generations by using and utilizing benefits that are created with concern for social and ecological well-being. It is worthwhile to distinguish between the terms "sustainable consumption" and "responsible consumption": responsible consumption is a consequence of a person's concern for one's own health and well-being; sustainable consumption means concern about well-being and the state of society (Eden, Bear & Walker, 2007; Oliver, 1996).

The study of sustainable consumption began with the so called "green consumption" (Polonsky, 1995; Aragon-Correa, 1998; Buysse & Verbeke, 2003; Camino, 2007; Fraj-Andrés, 2008). Then, social trends were added to environmental issues (Maignan, Ferrell, & Ferrell, 2005), and then the economic components (Obermiller, Burke, & Atwood, 2008).

The first step in developing a conceptual model for evaluating sustainable consumption is to determine factors influencing it. In this field we repulse from Classical models of individual consumer behavior (Engel & Blackwell, 1969; Sheth, Newman & Gross, 1991; Kotler, 1972). All such models divide all factors influencing consumers on internal and external (Kotler, 1972). Practically all studies on the topic state that internal factors play a more important role in insuring consumer sustainability. Kavaliauske & Uzdavinyte (2013) proved that personal factors have the biggest influence on green products purchase compared to social and cultural ones. Zografos (2007) showed that gender, age, level of education, and professional activities greatly affect the formation of responsible behavior. Generally, researchers pay big attention to the values of sustainable consumption. Vermeir & Verbeke (2006) proved the effect of the sustainable development values on different population groups. The best classification of sustainable consumption values can be derived from the wellness concept (Kraft & Goodell, 1993). Ardell (1977) was the first to formulate them as health nutrition, physical activity, stress management, personal health responsibility, environmental concern. Personal health responsibility later transformed into the concept of health consciousness (Gould, 1990) including such factors as health motivation and health information seeking and usage. Consumers with high health consciousness and environmental concern usually are willing to choose green and eco products even despite their higher price (Michaelidou & Hassan, 2008; Hughner, 2007; Kavaliauske & Ubartaite, 2014).

Among important external factors influencing sustainable consumer behavior we can mention adoption by community (Moisander, 2007), consumer's entourage (Goldstein, Cialdini, & Griskevicius, 2008), different categories of opinion leaders (Kavaliauske et al., 2013), role models like celebrities (Brace-Govan, 2012), green advertising, eco labels and environmentally friendly packages (Leonidou & Leonidou, 2010), promotion of healthy lifestyle by media (Maynard & Franklin, 2003).

Many researches show that when comes to sustainable consumption there is a big difference between the declared values and actual consumer behavior because of the existence of different types of barriers. Green products are more expensive and sold in smaller quantities than the "usual" ones (Gogia & Sharma, 2012). Limited product availability and lack of infrastructure are also determined as discouraging sustainable consumer behavior (De Pelsmacker & Janssens, 2007). It is proved that for sustainable consumption consumers have to change everyday rhythm of their lives and well-established habits, which is difficult to implement in practice (Jansson, Marell, and Nordlund, 2010; Dolnicar, 2008). Lack of knowledge also might influence consumer intentions negatively (Leiserowitz, 2006). Thøgersen (2004) conceptualized all barriers as direction and strength of values and attitudes (where these value orientations are in the personal hierarchy of values), lack of resources

(time, money, access, knowledge, skills, etc.), and structural barriers (laws, regulations, subsidies, infrastructure, available technologies, social norms).

However, existing studies within sustainable consumption and behavior are limited to specific areas of life (for example, eco-tourism (Dickinson, 2006; Dolnicar, 2008; Zografos, 2007), food consumption (Grunert, Hieke & Wills, 2014; Vermeir & Verbeke, 2006), regional aspect (Sharifah, Laily, and Nurizan, 2005) or only one of three aspects of sustainable consumption (ecological, economic or social, for example, Boztepe, 2012; Ken, 2001) and do not imply to evaluate the common shift in consumer behavior as well as to compare behavior changes in different markets, customer segments and countries. It is why there is a need to have the universal approach and scale for measuring the sustainable consumer behavior.

3. Research method

The literature overview showed that the previous researches focused on the values of sustainable development and their influence on consumer behavior, situation on the concrete product and service markets, concrete spheres and orientations of sustainable consumption. Still, there is a lack of a comprehensive instrument that would encompass all manifestations of sustainability orientations in consumer behavior. Though we find the task of elaborating such a scale a challenging one, we would like to make an attempt to unite and classify the spheres of sustainable behavior and form the basis for further researches.

The main steps in developing an instrument for assessing sustainable behavior are the following: identification of the spheres where sustainable behavior is especially evident; determination of their main attributes; operationalization of the attributes allowing to measure the propensity to sustainable behavior of individual customers and customer segments.

A dominant share of the previous research suggested scales for evaluating the presence of health concerns in consumer behavior in whole (Kraft & Goodell, 1993) and in food purchases in particular (Dutta-Bergman, 2005). Barr and Gilg (2006) described sustainable consumption as consisting of three constructs: purchase decisions, habits, and recycling. Grunert, Hieke and Wills (2014) united in one scale the measurement of concerns about own health and about global social and environmental problems. The scale suggested by Mohd Suki (2016) is dedicated to choosing environmentally friendly products. Wu, Zhou, and Song (2016) measured the actual sustainable consumption behavior as well as factors influencing the sustainable consumer.

The above mentioned scales as well as papers by Ni (2010) and Dong, Yang, and Li (2012) were used to collect a redundant set of statements. This process resulted in a set of 104 statements, out of which 3 were excluded as completely identical.

To make a preliminary assessment of the number of components of sustainable behavior, card sorting method was chosen. Open Card Sorting approach was used, where participants sort index cards into logical groups and create their own names for the new categories. This test was carried out by 14 individuals (9 female, 5 male, average age 32,1 years old). This procedure led to the formation of 4-9 groups (on average 7) with the following labels: health nutrition, physical activity, health care, choice of sustainable products, reuse and recycle, limiting consumption, getting and transferring information about sustainable development.

The evaluation of the constructed groups and the statements within the groups was based on 23 semi-structured interviews. The interviews were audio taped and then transcribed. The sample included experts in the field of healthy lifestyle (valeology), managers of companies involved in sustainability reporting, bloggers raising sustainability issues, and representatives of NGOs active in the field of sustainability. All interviews were held in February-March 2018.

4. Research results

The interviews revealed that the majority of respondents are critical towards many items in “health nutrition” group finding them overwhelming and partly contradictory. Further discussions of this issue with the interviewees led to the understanding that opinions about healthy (sustainable) / unhealthy (unsustainable) consumer behavior are formed to a great extent by the external information environment. In the modern information society, it becomes the responsibility of consumer to perceive and evaluate the information flows and make decisions based on the information that he/she considers as correct and relevant. Moreover, information can influence on the individual’s health and well-being directly. Based on that, a new group of factors of sustainable consumption was introduced connected to the behavior on the information market.

The following research findings were taken into consideration while elaborating the construct of sustainable consumer behavior:

- responsible behavior oriented towards own health and well-being is considered to be a part of sustainable consumer behavior because this behavior helps mitigating social problems;
- both consumption choices and behavior aimed at reducing consumption are included;
- the behavior on both product and services markets is studied. The importance of behavior on the information market is stressed.

The focus is on the purchasing and post-purchasing stages. The processes of information seeking, awareness raising and motivation are left out of the consideration in this phase of the research.

In the field of responsible behavior, 3 factors and 10 variables were identified. The construct “environment sensitivity consumer behavior” consists of 4 factors and 10 variables. Constructs “information culture and security behavior” are made up of 2 factors. 9 factors were stated by more than 10 respondents. The resulting constructs of sustainable consumer behavior are presented in Fig. 1.

Sustainable consumer behavior	Responsible consumer behavior	- health nutrition - physical activity - preventive check-ups	10 statements
	Environment sensitive consumer behavior	- limiting consumption - reuse and recycling - purchase of green (organic) products and services - participation in social and environmental events	10 statements
	Information culture and security behavior	- content consuming - content generating	3 statements

Figure 1. Constructs and attributes of sustainable consumer behavior

5. Directions of further research

The next step is quantitative research. The aim is a test of new construct on Russian market to validate the scale. The sample consists of 840 respondents represented the largest Russian cities (St. Petersburg, Moscow, Chelyabinsk, Yekaterinburg, Kazan) and all age groups. On this time 320 responses has already returned.

In the future, we plan to conduct a cluster analysis to identify different groups of consumers and describe the features of group models of sustainable consumer behavior. The new scale can be used to study the dynamics of changes in sustainable consumer behavior in the Russian market (possibly in other markets), and how to incorporate it into conceptual models of new research, including cross-cultural comparisons.

6. Conclusion

The research of sustainable consumer behavior is the focus of this article. An analysis of the literature showed that there is a big difference and contradictory opinions as to the understanding of the nature of the sustainable consumer behavior, and about its measurement.

For development of universal scale for measuring sustainable consumer behavior several scales were used to collect a redundant set of statements. This process resulted in a set of 104 statements. The using of card sorting method (14 individuals) and 23 semi-structured interviews of experts allowed to get final construct of sustainable consumer behavior consist of three factors: responsible consumer behavior, environment sensitive consumer behavior, information culture and security behavior. The next step is to conduct a quantitative study to verify the validity and reliability of the scale.

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