SUMMARY OF THE DOCTORAL THESIS

Title:

ANALYSIS OF THE BUYING AND CONSUMPTION BEHAVIOUR OF ECOLOGICAL PRODUCTS

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THESIS SUMMARY

The study of purchase and consumption behaviour of green products occupies an important and distinct place in marketing studies, as researchers are increasingly interested in discovering and understanding the complete mechanism behind the demand for environmentally friendly products. Therefore, the main purpose of this research is to identify and analyze the purchase and consumption behaviour of organic products among Romanian consumers.

The chosen research topic has become increasingly addressed in international scientific works. Several reasons have been identified for the increasing popularity of studies dedicated to ecological products. First of all, the organic market has evolved in recent years in terms of sales and visibility worldwide. Second, the purchase and consumption of organic products, as well as organic farming practices, bring numerous benefits to consumers and the environment. Thirdly, studying and understanding this type of ecological behaviour is essential to support the ecological responsibility of the population. For example, in Romania, there are, at the moment, some excessive or irrational buying and consumption behaviours of citizens that endanger the health of the environment. And, last but not least, studying the ecological behaviour of consumers is a relevant and useful research topic since purchase and consumption are two main components of the modern market economy. In today's society, the supremacy of consumers is established, and marketing orientation prevails among companies. These arguments led Chamorro et al. (2009, p. 233) state that studies of environmentally concerned consumers and green products "will continue to be attractive to researchers because environmental responsibility is constantly evolving, which means that the results of previous years' studies will not be necessarily valid in the future". Taking into account the arguments presented above and the recent changes in people's buying and consumption behaviours, it can be concluded that the phenomenon chosen to be studied must be better known and constantly exploited.

The aim of the research presented above is supported by two general objectives. The first general objective of marketing research is to analyze and measure the buying and consumption behaviour of ecological products from the point of view of the following factors: the level of knowledge regarding the studied phenomenon, the attitude towards the purchase and consumption

of ecological products, social influence, price sensitivity and the perception of product availability. As the organic market develops, determining the factors that enable or restrict this development becomes increasingly important and valuable. The second general objective of marketing research is to establish the relationship of association between the constructs of the proposed research model. This model can be used to segment organic consumers in Romania.

The decision-making problem that was the basis for determining the purpose and objectives presented above is the fact that, currently, there is no complete and updated data on the buying and consumption habits and needs of the population interested in organic products in Romania. It is surprising that, at the local level, this type of ecological behaviour has not received enough attention as a research topic, despite its potential to bring about significant positive changes at the societal level. Taking into account the development of the ecological market worldwide and the increased interest of citizens in protecting the environment, it can be argued that it is an opportune time to carry out such research.

The first three chapters of the paper outlined the current state of knowledge in the chosen research field. Numerous works of national and international renown regarding the study topic and its related fields were analyzed and critically evaluated. The main topics covered were ecological marketing and its role in solving current environmental problems, the concept of the ecological consumer, but also the spread of the ecological products market at local and international level. The review of the specialized literature showed that the research on the purchase and consumption behaviour of organic products is not so numerous among Romanians. The next step in completing the work and fulfilling the objectives was the start of the marketing research. In the present paper, the marketing research took the form of direct quantitative research, with primary data being collected through a web-administered questionnaire.

SECTION 1 – DETERMINING RESEARCH AIM & OBJECTIVES

The main purpose of this research is to identify and analyze the purchase and consumption behaviour of organic products among Romanian consumers. This aim is supported by two general objectives. The first general objective of marketing research is to analyze and measure the buying and consumption behaviour of ecological products from the point of view of the following factors: the level of knowledge regarding the studied phenomenon, the attitude towards the purchase and consumption of ecological products, social influence, price sensitivity and the perception of

product availability. As the organic market develops, determining the factors that enable or restrict this development becomes increasingly important and valuable. The second general objective of marketing research is to establish the relationship of association between the constructs of the proposed research model. This model can be used to segment organic consumers in Romania.

SECTION 2 – DEFINING RESEARCH HYPOTHESES AND STUDY VARIABLES

The research hypotheses were formulated following the literature review and are presented below. They have been grouped according to the objectives pursued in this work:

Hypothesis H1 related to O1: There is a statistically significant link between the level of knowledge regarding the studied phenomenon and the buying and consuming behaviour of ecological products.

Hypothesis H2 related to O2: There is a statistically significant link between the attitude towards the studied phenomenon and the buying and consumption behaviour of ecological products.

Hypothesis H3 related to O3: There is a statistically significant relationship between social influence and purchasing and consumption behaviour of organic products.

Hypothesis H4 related to O4: There is a statistically significant relationship between price sensitivity and purchasing and consumption behaviour of green products.

Hypothesis H5 related to O5: There is a statistically significant relationship between the perception of product availability and purchasing and consumption behaviour of green products.

Hypothesis H6A related to O6: There is a statistically significant relationship between the age category of the respondents and the purchase and consumption behaviour of organic products.

Related Hypothesis H6B O6: There is a statistically significant relationship between respondents' income and purchasing and consumption behaviour of green products.

Hypothesis H6C related to O6: There is a statistically significant relationship between the level of education and the buying and consumption behaviour of organic products.

Hypothesis H6D related to O6: There is a statistically significant difference between women and men regarding the average values obtained for the purchase and consumption behaviour of organic products.

The research variables and the scales to be used to measure them are presented and defined next. The review of the scientific literature showed that there are numerous factors that can influence the buying and consumption behaviour of organic products. For the present research, only those factors were chosen which, according to the results of previous specialized studies, have a considerable impact on ecological behaviour. Therefore, in order to deepen the theme of ecological buying and consumption behaviour and build a complete profile of the Romanian consumer of environmentally friendly products, several types of variables were chosen: psychological (level of knowledge, attitude), social (social influence), situational (price, availability) and socio-demographic (age, gender, income, level of education). All the factors mentioned above are frequently studied in the specialized literature dedicated to ecological marketing (Laroche et al., 2002; Roman et al., 2015; Jansson et al., 2017; Nekmahmud et al., 2022).

It is important to mention that, in this work, the variables presented above are also examined through socio-demographic factors, the most important being age, sex, income and level of education. The role of socio-demographic characteristics in ecological buying and consumption behaviour is intensively debated in the specialized literature. Most researchers are of the opinion that socio-demographic factors cannot act as determinants of ecological behaviours (Peattie, 2010; Bhutto et al., 2019), many of the previous studies reporting contradictory results or insignificant differences (Akehurst et al., 2012; Witek & Kuźniar, 2021). Therefore, these variables are not included in the proposed research model, but the association relations with the other components of the questionnaire are measured, as well as how the analyzed factors differ according to the socio-demographic attributes of the respondents. Despite previous inconsistent results regarding the influence of socio-demographic factors on ecological buying and consumption behaviour, the present study aims to combine socio-demographic variables with psychological, social and situational ones, in order to build a complete and updated profile of the Romanian consumer of ecological products.

SECTION 3 – IDENTIFYING RESEARCH METHODOLOGY

In the following section, details are presented about the research method and the tool chosen for collecting information. This step is part of the design stage of marketing research.

The choice of research method is a decision that takes into account several aspects, including available financial resources or time restrictions. For the present work, the survey was chosen as the primary data collection method. It was decided to select this method, as it best fits the purpose and objectives of the research. The type of survey used is online, which is carried out on the Internet. Therefore, to collect information from Romanian consumers, the instrument used is the questionnaire administered on the Web.

According to the mode of communication, the type of survey chosen is the one conducted online on the Internet. Online research has become increasingly popular over the past 20 years, managing to grow in a short time. Ipsos (2023), a well-known market research company, claims that 65% of surveys conducted in 2022 took place online, 15% more compared to 2016 and 46% compared to 2005. The COVID Pandemic -19 represents a crucial factor that accelerated the digitalization of consumers, companies and industries in many countries (OECD, 2020). Another consequence of the pandemic was the shift of commercial activities from physical points of sale to online stores (Amankwah-Amoah et al., 2021).

Like any other research method, the survey has both strengths and weaknesses. Proctor (2005) believes that the survey is a useful and safe research method with multiple benefits. In addition, in addition to the advantages and disadvantages of traditional surveys, online surveys have some additional advantages. For example, they have lower costs, are quick and easy to implement, and capture responses immediately (Burns & Veeck, 2020). At the same time, online surveys have a pleasant and interactive visual content, and busier people, who do not want or cannot participate in a classic survey, are more willing to take part in an online survey (Szolnoki & Hoffmann, 2013). Auger and Devinney (2007) add that due to the direct interaction with a computer and the lack of an interviewer, people tend to be more willing to answer questions about sensitive topics because they perceive a prominent level of trust and confidentiality. All these aspects ensure flexibility in the research process and provide convenience to both the researcher and the respondents.

On the other hand, low response rate is a major disadvantage of online surveys (Ranchhod & Zhou, 2001). According to Manfreda et al. (2008), web-administered surveys have, on average,

an 11% lower response rate compared to other types of surveys. In their study, based on a sample of 3200 respondents, Hohwü et al. (2013) conclude that online survey tools can easily replace traditional questionnaire forms without major effects on response rates. Evans and Mathur (2018, p. 859) present several factors that can influence the response rate, for example "length, content and wording of questions, degree of personalization, wording of the invitation, incentives offered, identity of the researcher and default settings of the survey".

Another weakness of Internet surveys is that they require respondents to have certain digital knowledge or technical skills (Burns & Veeck, 2020). Therefore, these surveys are best suited for people with access to the Internet or who know how to complete the online survey form. In this case, the representativeness of the sample is influenced by the fact that some categories of consumers will be overrepresented, and others underrepresented (Cătoiu et al., 2009). According to Ranchhod and Zhou (2001), individuals who prefer to respond to Web-administered surveys are those who are better with technology and use the Internet frequently.

Weighing all the arguments presented above, it can be concluded that the advantages outweigh the disadvantages regarding online quantitative research. Furthermore, the limitations of surveys can be reduced through careful design and execution of the data collection instrument. As Scornavacca, Luiz Becker, and Barnes (2004, p. 190) state, "a carefully designed and thoroughly tested instrument provides a solid foundation for valid and faithful measurement of social phenomena."

The research tool developed to collect quantitative data about Romanian consumers took the form of an online questionnaire. By means of this tool, the statistical analysis of the study variables, as well as the testing of the research hypotheses, is also pursued.

Administering a Web survey among Romanian consumers is a suitable decision, taking into account the fact that the use of the Internet among Romanians has grown since 2008. According to Statista (2024), in 2023, 92% of households in Romania had access to Internet, compared to 72% in 2016 and only 42% in 2010. As Tatu (2018, p. 44) states, "the degree of computer literacy of the population of all ages and the geographical coverage of the Internet connection are two factors that have favoured the growth the popularity of online surveys".

The researched community from which the sample was drawn is made up of all persons of Romanian nationality, male and female, aged at least 18 years, to whom the researcher has access. In the absence of statistical data and official information about the consumers of organic products in Romania, the marketing research takes into account the population reported by the National Institute of Statistics (INS), as a result of the last census carried out in 2021. Thus, the provisional results, available at the time of the research, it shows that the total population of Romania includes 15,330,990 people aged at least 18 (RPL2021, 2023). These data were taken into account to calculate the sample size, since, at the time of the study, no statistical information was available on the number of Romanian consumers of organic products.

The observation unit is represented by the individual who has heard of organic products, regardless of gender, social status or age, with the mention that people under 18 cannot participate in the questionnaire. As it is a research conducted among adults, able to provide information about their preferences and argue their individual opinions, the survey unit is the same as the observation unit presented above.

Therefore, the collection of information was done through the survey method, as a structured form of communication. Responses were collected by self-recording by respondents. Communication with the survey unit was indirect, as the questionnaire was administered online on the LimeSurvey platform. This platform allows the construction of easy-to-navigate and accessible questionnaires with an attractive design, and the anonymity of the answers is ensured. Data collection took place over a three-month period between November 2021 and January 2022. The survey was live throughout this period, so each participant could forward the survey web address to other interested parties. The average time to complete the questionnaire was approximately 10 minutes.

SECTION 4 – SAMPLING PLAN

The process of determining the sampling plan is also part of the marketing research planning stage. This plan includes several elements, including choosing the sampling method and establishing the sample size. These two components are presented in the following sections.

The sampling method chosen for this study is non-random, non-probability, represented by convenience sampling. Cătoiu et al. (2009, p. 489) define non-probability sampling as "a

subjective procedure in which the researcher's judgment contributes to the determination of the units that are included in the sample". The chosen method aims to obtain a sample in a convenient way for the researcher, with a greater degree of control (Malhotra et al., 2017). Due to financial and time constraints, convenience sampling is considered suitable for the present research. Therefore, the main reasons behind this decision are operational considerations, specifically "the financial, time and money resources needed for the design and application of each sampling option" (Cătoiu et al., 2009, p. 492).

The use of such a method has several advantages, including cost and time reduction, accessibility, easy measurement and high response rate (Cătoiu et al., 2009; Malhotra et al., 2017). On the other hand, the main disadvantage is the fact that the representativeness of the sample is limited. Therefore, the results obtained from such research cannot be projected to the entire population. At the same time, being about a research carried out in the online environment, "representativeness is affected by a process of self-selection of respondents" (Cătoiu et al., 2009, p. 305). According to the most recent analysis published by Datareportal (Kemp, 2024), approximately 18 million Romanians connected online at the beginning of 2024. However, Internet access in Romania is still conditioned by certain socio-demographic characteristics. For example, in rural areas, there are fewer people connected to the Internet or who know how to use a computer.

Despite these limitations, convenience sampling is frequently used by researchers, even with large sample sizes (Malhotra et al., 2017). David and Sutton (2011) argue that this method is an appropriate option when the study population is unknown, or the researcher is investigating innovative ideas, concepts or hypotheses.

Taking into account the purpose and structure of the paper, the present research has a descriptive character, with the aim "to describe and evaluate the coordinates of the researched marketing phenomenon" (Cătoiu et al., 2009, p. 73). At the same time, if the exposed decision problem is also considered, it can be argued that some aspects of the research are exploratory in nature. Due to the degree of novelty of the studied phenomenon and the low ecological knowledge at the local level, the research also aims to obtain some exploratory information, in order to better understand the investigated issue.

Based on the considerations presented above, it can be concluded that convenience sampling is the easiest, fastest and least expensive way to reach as many respondents as possible. Therefore, any individual who presents the characteristics of the investigated population can participate in the online questionnaire if they wish to do so. Therefore, although it does not present a nationally representative sample, the research can provide valuable results about the investigated collective, contributing to the development of knowledge in the field and providing an important starting point for future studies on organic products in Romania.

Several statistical calculation formulas were used to determine the optimal sample size. By applying a margin of error of 5% and a confidence level of 95%, values most often used by researchers (Burns & Veeck, 2020), the optimal number of respondents varies between 384 and 400 observation units for the research of girl. It is important to state that the mathematical formulas and other characteristics considered for the sample size are used for indicative purposes, considering that "the sample size determines the accuracy of the results, while the sampling method determines the representativeness of the sample" (Burns & Veeck, 2020, p. 274).

In the sections above, the elements specific to the preliminary phase and the design phase in marketing research have been presented and discussed. Now that the research methodology has been established and defined, and the data collection tool has been finalized, the next step in marketing research is the realization phase. In this phase, it was possible to reach 686 respondents.

The most important actions of the realization stage were the collection and processing of data, followed by the interpretation and analysis of the obtained information (Cătoiu et al., 2009). Data processing and analysis was carried out with the help of the Statistical Package for Social Sciences (SPSS) program, using different statistical procedures. The statistical interpretation of the obtained results provides a solid scientific basis for marketing research, thus univariate and bivariate analyzes are combined to test the proposed model and identify the links between the variables.

Furthermore, in the last section of this summary, the main results obtained are written, analyzed in relation to local and international studies in the specialized literature.

SECTION 5 – RESULTS SUMMARY

The chosen research method allowed obtaining valuable information about Romanian consumers. Thus, data were collected about the importance of protecting the environment and the ecological behaviours carried out in the last 6 months, the consumer perception of ecological products, the motivations and barriers that influence the ecological behaviour of purchase and consumption, as well as about the socio-demographic characteristics of the respondents. Next, the most important data obtained are shown.

Regarding the importance of protecting the environment, it can be stated that, although most of the surveyed consumers claim that protecting the environment is important to them, not all of them really act in this sense. First, they seem more willing to participate in activities that bring them some additional benefit, for example recycling or avoiding plastic, than to adopt behaviours that do not bring direct financial benefits and involve some degree of discomfort, such as changing their diet and purchasing ecological products. Secondly, the number of pro-environmental activities carried out in the last 6 months is, on average, a moderate one. For example, the number of respondents who carried out a maximum of three activities is almost double the number of those who participated in eight or more activities. The truth is that most consumers alternate between harmful and environmentally beneficial behaviours throughout the course of a day. But once harmful behaviours become habitual, more drastic measures are needed. Also, consumers need to understand that, in addition to purchasing green products, there are other adjacent behaviours that are equally useful in protecting the environment.

Another interesting result is the fact that the purchase of local products represents the third most mentioned response among the ecological behaviours carried out in the last half year. In general, people tend to perceive these products as being related to protecting the environment while also helping to develop the local economy and society. For this reason, such products must be promoted more intensively in Romania. Food production is more important than the product itself, so by combining a local product with an ecological one, an optimal solution to current ethical and environmental problems is formed.

Regarding the answers to the specific questions about organic products, it is confirmed that the functional aspects remain in the first place for the Romanians surveyed when they go shopping. So, regardless of the ecological characteristics of a product, consumers are unwilling to buy it if they are not convinced that it has good taste, high quality or a beneficial effect on health. In

addition, due to higher prices, their expectations are higher regarding the performance of green products. Therefore, in order to attract shoppers to environmentally friendly options in stores, manufacturers and marketers must also pay attention to the above-mentioned attributes, not just green qualities. In short, the organic products offered must be as effective or even better than conventional alternatives to be truly successful.

In addition to the factors that can motivate consumers to buy and consume organic products, the study also identified the barriers that stand in the way of ecological behaviour. Price, limited availability and lack of clear labelling and information are the main obstacles to purchasing organic products mentioned by the survey participants. However, identifying these barriers is only half the battle. The other half is about discovering ways to overcome them and turn them into opportunities. That is why, in this work, there is a separate section where suggestions and recommendations are offered for reducing these obstacles and breaking down the wall between the favourable statements of the citizens and the reality of the actions in the shops.

From a socio-demographic point of view, the obtained results present the typical buyer of organic products in Romania as a mature, well-educated man, with above average income and with a family. Thus, the present study failed to confirm the findings of previous research in the specialized literature, for example the fact that young people buy more organic products or that women are more concerned about the environment. On the one hand, it is possible that some unique characteristics, specific to the chosen sample, are responsible for these results. On the other hand, the impact of socio-demographic attributes on ecological behaviour remains an intensely debated topic in specialized literature, as the conclusions are often contradictory or insignificant. In this sense, it is recommended to use psychographic factors to identify and characterize ecological consumers.

Returning to the constructs included in the model, it can be concluded, based on the acquired associations, that, among the surveyed Romanians, there is a statistically significant link between the behaviour of purchasing and consuming ecological products and the level of knowledge, attitude, the social factor , price sensitivity and perceived product availability, which is consistent with previous observations in the literature. Thus, it can be suggested that all these factors contribute to the process of purchasing and consuming organic products.

The strongest correlation was identified between the degree of knowledge regarding the studied phenomenon and the purchase and consumption behaviour of ecological products. Based on this result, it can be anticipated that by educating and informing consumers about the benefits of green products, they will buy such products and become more concerned about the environment. Therefore, as people accumulate information about environmental issues, they begin to change the way they think and behave.

It is true that the answers given by the respondents do not fully reflect the behaviour at the point of sale, but based on the mentioned findings, it can be concluded that the majority of Romanians surveyed have a favourable attitude towards protecting the environment and ecological products. Overall, the collected data show some encouraging trends regarding Romanians' desire to buy and consume environmentally friendly products. However, taking into account the information on the frequency of purchase, the amount spent monthly and the willingness of consumers to pay extra for ecological products, additional measures are still needed to increase domestic demand and develop the involvement of citizens in environmental protection. In addition, it is possible that the obtained results reflect a particularity of the consumers of organic products in Romania, where the phenomenon of self-consumption is manifested. Thus, people either grow their own food or buy non-certified organic products from agro-food markets or directly from producers.