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**POSSIBILITIES OF USING MARKETING POLICIES AND  
STRATEGIES IN THE FIELD OF THE CIRCULAR ECONOMY**

**ABSTRACT**

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## LIST OF NOTATIONS

DF – degrees of freedom

E – Admitted error

E<sup>2</sup> – squared error, (%)

H<sub>0</sub> – null hypothesis

H<sub>1</sub> – alternative hypothesis

N – population size

n – recommended sample size, originally determined (1067)

p – percentage of favorable responses out of all cases

q – percentage of unfavorable responses out of all cases

t, df – theoretical value for the level of significance and for the degrees of freedom

z – normal distribution

z<sup>2</sup> – z-coefficient squared

α - level of significance

χ<sup>2</sup> - Chi-Square test for hypothesis testing

t<sub>calc</sub> – Critical Report

Std. deviation – standard deviation

t, df – corresponding theoretical value for significance level (α) and degrees of freedom (df)

ANOVA – Analysis of Variances

Asymp. Sig – Asymp significance level. Sig.

Sig. –Level of significance Sig. (2-tailed)

O – objective



## LIST OF ABBREVIATIONS

AMA = American Marketing Association  
B2B = Business-to-Business  
EC = European Commission  
CO<sub>2</sub> = Carbon dioxide  
CPC = Cost/click  
WEEE = Waste Electrical and Electronic Equipment  
DIY = "Do-it-Yourself" Market  
LED = Light-emitting diode  
N/A = Not Applicable  
OECD = Organisation for Economic Cooperation and Development  
NGO = Non-Governmental Organization  
UN = United Nations  
PET = Polyethylene terephthalate bottle/vial  
SGR = Guarantee-Return System  
SMART = Specific, measurable, achievable, relevant and time-bound  
EU = European Union  
UK = United Kingdom  
UNEP = United Nations Environment Programme

## INTRODUCTION

The fundamental field in which the doctoral thesis falls is that of Social Sciences, the branch of Economic Sciences, the field of Marketing, being addressed by the author important aspects regarding the adoption of sustainable practices and solutions of the circular economy within marketing policies and strategies, both from the perspective of the Romanian business environment and from the perspective of Romanian adult consumers.

The field of circular economy is gaining momentum in the context of prevailing unsustainable production and consumption patterns and ecological crises. The circular economy model is often presented as a practical strategy for implementing sustainable development (Geissdoerfer et al., 2017; Van den Bergh, 2020). The circular economy promotes environmental sustainability and recognizes the need for favorable economic conditions (Homrich et al., 2018), and sustainable economic growth implies, among other considerations, a growth rate that can be maintained without creating other significant economic problems, especially for future generations, with a clear trade-off between today's rapid economic growth and future growth (Rose, 2020), social sustainability is usually absent and there is a risk of reinforcing social inequality (Johansson, Henriksson, 2020).

The urgency behind a circular transformation is based on an ecological and resource crisis, which is becoming scarce (Islam et al., 2023; Xiong et al., 2023), as well as globalization and increasing resource consumption (Voulvoulis, 2022), the circular economy can also be the expression towards less sustainability, as it involves a system in which recycling and reuse are used as substitutes for raw materials (Kirchherr et al., 2017; Johansson, Henriksson, 2020).

In practice, the development of a common vision for the application of circular economy principles on a large scale is based on existing assets and activities (Velenturf, Purnell, 2021). The circular economy model is implemented in various contexts, from resource efficiency (Blomsa, Brennan, 2017), product design (Lacy et al., 2020; Van den Bergh, 2020) and product integrity (Stahel, 2016), recycling and proper waste management (Ghisellini, Cialani, Ulgiati, 2016; (Murray, Skene, Haynes, 2015; Knickmeyer, 2020), reuse and repair practices (Ghisellini, Ulgiati, 2020), transformation of post-consumer waste into valuable materials (Iacovidou, Hahladakis, Purnell, 2021; Kirchherr et al., 2023) and up to urban circular initiatives (Russell et al., 2020).

The transition to a circular economy is a "win-win economic and value approach" to address resource scarcity and waste disposal through the circular model (Homrich et al., 2018). Marketing definitions and practices must also constantly evolve with the transition to a sustainable economy, in order to keep up with market developments, different customer behavioral typologies, and to meet the expectations of various stakeholders (Sheth, Parvatiyar, 2021). However, there are still many issues to be addressed within the concerns related to the marketing-circular economy-sustainability relationship (Vadakkepatt et al., 2021).

Despite existing advances in the literature on understanding circular economy concepts and circular business models, the relevance and challenges (Kirchherr et al., 2023) as well as the existing

perspectives on marketing in a circular economy are fragmented (Mostaghel, Oghazi, Lisboa, 2023). This fragmentation is evident in the multiple approaches to circular economy marketing. For example, some research suggests integrating all aspects of sustainability (environmental, economic, and social) into the marketing mix (Vadakkepatt et al., 2021), while other researchers suggest measuring the impact of firms' level of circularity on consumer purchase intent (Papadas et al., 2019). For most research agendas and executive decisions, this ambiguity does not significantly affect (Mostaghel, Oghazi, Lisboa, 2023). However, the circular economy model is the new normal, and a marketing theory in this area will help specialists adapt their marketing policies and strategies and build a competitive advantage and market position suitable for the circular economy and sustainable development.

## RESEARCH METHODOLOGY AND OBJECTIVES OF THE DOCTORAL THESIS

The research methodology, used to fulfill the main purpose of the doctoral thesis, consisted of classical methodologies, carrying out a series of researches based on secondary data, qualitative primary data, but also quantitative primary data. The author consulted the literature in order to provide a theoretical basis and analysis for the current state of knowledge regarding the circular economy model and the influence of marketing within the model. In order to capture the complexity of the research topic, the author continued with the collection of qualitative data through the group interview method, two group interviews were conducted in which the identification of consumer opinions, attitudes and habits regarding the circular economy and sustainable development was carried out, then he used the in-depth interview method in order to discover the motivations, obstacles, strategies and perspectives at the level of specialists, in the integration of the sustainable model of the circular economy in business, in the Romanian context. Based on these two qualitative researches, carried out by different methods, the researcher started a quantitative research, aiming at the continuation and scaling of the studies.

Through his doctoral thesis entitled "Possibilities of using marketing policies and strategies in the field of circular economy", the researcher has set himself a general objective, namely, to develop effective strategic options through marketing programs, to promote circular business models at the level of the business environment, to increase the degree of involvement and awareness among the general public, and to deepen the understanding of topics related to circular economy and sustainability.

The following are briefly presented the methodologies of qualitative research through the group interview method and the method of in-depth interview and quantitative research:

### **Methodology of qualitative research through the group interview method**

The population subject to the present research was represented by adult consumers from Braşov County, who carry out activities specific to the circular economy.

For the scientific approach, a questionnaire was applied to recruit the participants to the group interview. The questionnaire was applied near waste collection points and centers in the public space and inside some shops in Braşov, and the target population for the research was represented by citizens over 18 years of age, from Braşov County, who know the terms "recycling" and "sustainable", both women and men.

For the group interview research method, a sample of 6-12 people is specified. In view of this recommendation, it was decided that each focus group should consist of eight participants, taking into account the subjects' willingness to participate voluntarily in a group interview. Thus, after conducting two group interviews, a sample of 16 subjects resulted.

For each group interview, respondents ranged in age from 18 to 39 years old, with both female and male people, married and unmarried. Most of the members in the sample are working people who, in terms of completed education, have a medium or higher education.

## **Methodology of qualitative research through the in-depth interview method**

Since the literature on topics such as *"the link between the circular economy and sustainability"* is limited compared to articles on *only "sustainability"* or only on *"circular economy"* (Hysa et al., 2020), a fundamental, theory-based approach has been adopted. When the need to develop new concepts and reveal deep insights and meanings is identified in the literature, this methodology is considered to be the most appropriate rather than building on previous theories (Silverman, 2020).

The use of qualitative research methods for the collection of primary data is required by the exploratory nature of the present study. In line with the suggestions offered by Matthews and Ross, when social phenomena are underexamined in immature study contexts, qualitative research is appropriate (2014). Also, according to Anand et al., qualitative studies are necessary because they help contextualize phenomena (Anand et al., 2021).

In the research, it was decided to follow Gioia's methodology, with an inductive analysis of the content. Namely, three main stages of Gioia's methodology (first-order analysis, second-order coding, and aggregate dimensions) have been completed. The inductive approach involves these steps, the reasoning being organized starting from the particular to the general. This methodology was chosen because it ensures the rigor and consistency of the study (Gioia, Corley, Hamilton, 2013).

The process began with inductive data, with simultaneous data collection and analysis, data coding, establishment of theoretical categories, and validation of these categories with additional data as recommended (Matthews, Ross, 2014).

The qualitative research was carried out among specialists and, by asking questions about general aspects of the circular economy, marketing and customer engagement, the aim was to obtain information on the basis of which to establish the general objectives and hypotheses of future quantitative research in the same field.

The research on the topic took the form of in-depth interviews that were based on open-ended questions on the topic of circular economy and sustainable development, addressed to qualified business level personnel from different fields, with professionals such as marketers, executives and managers being interviewed. The methodology of this qualitative research was based on the interview of six decision-makers in the business they work for.

### **Quantitative Research Methodology (1)**

The sampling method used in this research was a non-probabilistic one and through this method the questionnaire was distributed for completion, and the data were collected with the help of the internet.

To send the questionnaire to the respondents, a sustainability profile platform, called eEco.ro, the Whatsapp communication platform, as well as the social media platforms Facebook and Instagram were used.

On the sustainability platform, the researcher created a post with a message regarding the completion of the questionnaire on the topic of circular economy, and users registered on this platform dedicated to sustainable solutions received a notification with that message. The post urged them to access the questionnaire for completion and to distribute the set of questions further to other individuals interested in the topic.

On social media platforms, communities representing the target audience of the research were identified, pages and accounts dedicated to the circular economy and sustainability, and the link to the questionnaire was also posted by people with many followers, on their profiles or in the content created, thus contributing to the massive spread of this questionnaire online.

At the same time, the near-close sampling method, also known as the "snowball method", was also used. Thus, the adults who filled out the questionnaire shared it with other people in their close circle with the help of messaging applications.

The research method used in this scientific endeavor was the investigation method. This method involves the collection of primary data through direct interviews, based on a questionnaire (Lefter, 2004), in this research using an online questionnaire, administered by the researcher.

The data collection was carried out by the researcher over six weeks, between January and February 2024, during which time the posts were reviewed and they were intended to benefit from visibility through reminder messages and "follow-up".

The primary data were obtained through the database created from the participants' answers provided in the online questionnaire. The questionnaire consisted of a total of 27 questions, measured with various types of scales (nominal, interval, ordinal) and made in Google Forms.

Before distributing the questionnaire to the study population, it went through a pre-testing process among 12 subjects to be evaluated and to identify and eliminate potential errors in the development process. Following a brief analysis of the uncertainties, after pre-testing the questionnaire, it was concluded that one question should be eliminated and additional explanations provided for the content of two of the questions.

The database with the answers of the respondents could be downloaded using the Google platform (Forms and Sheets) and the Microsoft Excel application, and then the data were coded and processed through the Microsoft Office package (Word, Excel, PowerPoint) and the IBM SPSS Statistics program, version 29.0.2.0 (20).

A total of 595 questionnaires were completed in the study. Of these, however, 14 questionnaires were excluded from the marketing analysis by the researcher because they showed inconsistency in the answers. Thus, a final sample of 581 people was reached who were included in the analysis and interpretation of the data. As there is no exact data on the number of people who viewed the questionnaire during the research period, it was not possible to determine a refusal rate.

As for the validation of the sample, this stage is done in cases where the sampling is probabilistic and the results can be extrapolated or generalized to the level of the population to be

investigated (Lefter et al., 2006). For a research based on probability sampling, validation can only be correctly carried out on the basis of gender and age group criteria, as national databases provide free access to official statistical information related only to age and gender groups (INSSE, 2023). In the case of the comparison between the research sample and the official population data, based on the gender and age group criteria, if there are differences greater than 1.96 (critical value for a significance level of 0.05), the sample normally needs to be recovered, but if there are no large differences in percentages, the sample shall be validated.

In general, non-probability sampling does not imply validation. Considering that the sampling method is non-random, it is not possible to statistically validate the sample and extrapolate the research results (Lefter et al., 2006). This is also true for the present quantitative research. In the case of the present research, the sampling is a non-probabilistic one, and the results cannot be generalized. Thus, it was decided not to carry out the validation of the sample because the theoretical steps say that the validation is carried out correctly only in the case of a random method.

### **Quantitative Research Methodology (2)**

The second quantitative research within the thesis is based on the use of the survey method, as in the case of the quantitative research exposed in subchapter 5.1., the tool used in the research being an online questionnaire made with the help of Google Forms.

In this study, a non-probabilistic sampling method was used, the questionnaire that was the basis of the research being distributed online to be completed and the data being collected with the help of the Internet.

To distribute the questionnaire to the respondents, the researcher used several online platforms such as eEco.ro, Facebook and Instagram, Whatsapp, as in the case of the research developed in subchapter 5.1. Through the sustainability platform eEco.ro, the researcher published an article with a message for registered users, urging them to fill out the questionnaire about participating in the warranty and return packaging program and distribute it to other people involved. In parallel, communities and pages dedicated to the field of circular economy were identified on social media platforms, within which the link to the questionnaire was distributed.

The questionnaire was also shared on Facebook and Instagram by content creators with many followers, in story posts, contributing to an extensive spread of the questionnaire online. The technique of near-up sampling, known as the "snowball method", was also used. In this regard, the respondents who completed the questionnaire were directed to share it for completion with other people in their close circle of acquaintances, through various messaging applications, such as the Whatsapp application.

The research method applied within this quantitative marketing research consisted in the use of the survey method. This approach involves collecting primary data through face-to-face interviews, using a questionnaire (Lefter, 2004). In this research, an online questionnaire administered by the researcher was used.

The researcher carried out data collection over a six-week period, from March 18 to April 28, 2024, monitoring the volume of responses through "follow-up" messages. The primary data were collected using an online questionnaire, developed in the Google Forms platform, and consisting of 20 questions, measured with various types of scales.

Before distribution to the researched population, the questionnaire was tested on a group of 8 subjects to identify and correct any errors. After analyzing the results of the pre-test, it was decided to eliminate one question.

The data collected from the respondents were downloaded using the Google Forms and Google Sheets platforms, and were subsequently processed and coded using the Microsoft Excel application and the specialized software IBM SPSS Statistics, version 29.0.2.0 (20). Subsequently, the researcher used the Microsoft Office suite with Word, Excel and PowerPoint programs, as well as the SPSS Statistics program to interpret the results, test statistical hypotheses and present the final findings.

During the research, a total of 523 questionnaires were completed. After checking and processing the data, it was found that a final sample for data analysis and interpretation, consisting of the 523 people who completed the set of questions. As there is no precise information on the number of persons who had access to the questionnaire during the research, a refusal rate could not be calculated.

Regarding sample validation, this process is essential in the case of probability sampling, where the results can be extrapolated to the entire researched population (Lefter et al., 2006).

In a study that is based on probability sampling, validation can be done correctly by comparing gender and age groups, given that information from official statistical databases is made available free of charge only on these criteria (INSSE, 2023).

In the case of the comparison between the sample at the base of the research and the official population, gender-related and age-related data, if there are differences greater than 1.96 (critical value for a significance level of 0.05), normally, the sample needs to be recovered, but if there are no large differences at the percentage level, the sample is validated. On the other hand, non-probability sampling does not allow statistical validation.

For a quantitative study that is based on non-probability sampling, it is not possible to validate the sample according to the appropriate statistical methodology and implicitly it is not allowed to extrapolate the results to the general population (Lefter et al., 2006). Because the present study uses non-probabilistic, non-random sampling, the results cannot be generalized to the entire population. Thus, the validation of the sample was not carried out, respecting the theoretical principles of random sampling.

The objectives of each research have been set to integrate complementary outputs aimed at supporting relevant marketing programmes for circular economy stakeholders. The details of these objectives are presented below:



### **Qualitative research through the group interview method:**

- a. Determining the degree of understanding and awareness of adult consumers towards circular economy practices and sustainable development principles.
- b. Identification of respondents' opinions on campaigns to promote the circular economy and their effects.
- c. Determination of consumption habits and behaviours and waste management among adult consumers.
- d. Identify the factors that shape attitudes towards the circular economy and sustainable development.
- e. Investigating consumer motivations and barriers encountered in adopting sustainable circular economy practices.
- f. Establishing the most efficient ways of informing in the field of circular economy, from the perspective of the subjects.
- g. Generating perspectives and recommendations for decision-makers in promoting the circular economy, with the aim of making this branch contribute to sustainable development.
- h. Exploring consumers' opinions and attitudes regarding individual and collective contribution to circular economy practices and the process of reducing the CO2 footprint.

### **Qualitative research through the in-depth interview method:**

- a) Assessing business professionals' understanding and awareness of circular economy principles and sustainable development practices in the business landscape.
- b) Exploring the factors influencing attitudes towards the adoption of circular economy principles and sustainable development practices in different firms, establishing the reasons behind them.
- c) Analysis of how practitioners' perceptions of the circular economy and sustainability practices at the firm level influence the adoption and implementation of these practices within their respective businesses.
- d) Identifying circular business models in which the interviewed companies can be included, based on the solutions they offer in their approaches to circular economy principles and sustainable development practices.

### **Quantitative research (1):**

- a. To determine the degree of awareness among the subjects regarding the positive impact of the circular economy on the environment and the way in which the respondents practically apply the principles of circular economy.
- b. Identifying the most frequent direct sustainable circular economy actions and measuring the frequency with which respondents carry out these actions.
- c. Identification of the most common indirect sustainable behaviors among study participants.

- d. Find out the degree of accessibility and the most important benefits of applying the circular economy, from a consumer perspective.
- e. To determine the main reasons behind the adoption of circular economy practices among the subjects and to find out the main barriers encountered in carrying out these practices.
- f. Identifying the collected materials and the motivations for which respondents get involved in recycling actions, as well as finding out the frequency of recycling.
- g. Evaluation of Romanians' opinion on the effectiveness of information on circular economy and sustainability, provided in schools and through awareness and awareness initiatives.
- h. Discovering the degree of popularity of sustainable brands/companies and establishing the sources through which subjects learned about their sustainable practices, as well as the extent to which they attach importance to sustainability elements in their purchasing and consumption decisions.
- i. Determining the subjects' attitudes towards relating to sustainable brands/companies and discovering the most appreciated sustainable aspects, assumed by the brands involved in the circular economy, from the respondents' perspective.
- j. To find out the degree of importance given by respondents to sustainable practices in the goods production sector and to determine, from a consumer perspective, the popularity of sustainable measures within the services sector.
- k. Identification of links between respondents' characteristics and relevant study variables.

**Quantitative research (2):**

- a) Identifying the main categories of materials for which packaging is most frequently returned within the SGR and discovering the period of time since Romanian consumers participate in the program.
- b) Quantifying the level of consumer satisfaction with the organization and services offered through the SGR program and determining the main way in handing over the collected packaging.
- c) Determining the main difficulties encountered in participating in the SGR program and measuring the frequency with which warranty packaging is handed over by consumers.
- d) Identification of the main source of information related to the SGR collection system among consumers.
- e) Determining attitudes towards the implementation of the SGR program and quantifying consumers' perceptions of the overall experience.
- f) Determining the efficiency of the national SGR program with respect to environmental protection, from the perspective of consumers.
- g) Identifying the extent to which consumers consider the information about the SGR recycling program sufficient and discovering trends regarding the circular economy, with a focus on production and consumption.



- h) Establishing correlations between the characteristics of the respondents and the relevant variables of the study.

## THE STRUCTURE OF THE THESIS

The field of circular economy is a complex field, and once intersected with the field of marketing, it has a significant potential for development at the level of the academic environment. Next, the six chapters elaborated by the researcher and detailed below, make up the structure of this doctoral thesis.

The first chapter has an exclusively theoretical character, making an introduction to the area of circular economy and aiming to expose theoretical aspects specific to marketing. This is followed by the second chapter, which presents the current state of knowledge on the circular economy and the influence of marketing in the field. The second chapter highlights the most important current trends in the circular economy and the importance of involving marketing in promoting this economic model. These first two chapters led to the analysis presented in the following chapters.

In the third chapter the qualitative research based on the group interview method and the research methodology is exposed, and in the next chapter the qualitative research through the in-depth interview method and the research methodology is presented.

In chapter five, the quantitative marketing research on the opinions, attitudes and behaviors of Romanian consumers towards circular economy solutions for sustainability is presented, and then quantitative research on the attitudes, perceptions and behaviors of Romanian consumers in the context of participation in the national SGR collection program is developed. The research was carried out to investigate the commitments and new trends in the field of circular economy and sustainable development at the level of consumers in Romania, analyzing and interpreting the most important results obtained.

The doctoral thesis ends with the presentation of the marketing policies and strategies specific to the circular economy and of the marketing projects designed by the author for the research topic, with the presentation of the general conclusions, personal contributions and scientifically disseminated results, but also with the general exposition of the limits and future directions of research.

## **ORIGINAL RESULTS, CONCLUSIONS, AND RELEVANCE IN THE SCIENTIFIC FIELD**

Based on the results of the qualitative research based on the group interview method, it can be concluded that there is an increased interest on the part of adult respondents in Brasov for the circular economy model and the sustainable development process, but also that it is important to continue consumer education and awareness efforts to strengthen this interest. Participants showed openness to change and commitments to circular practices, and this points to the potential for a transition to a more sustainable economic system. At the same time, the research highlights the importance of collaboration between different stakeholders, including governments, companies and civil society, to implement circular practices and promote sustainability. By involving all stakeholders in a joint effort, it is possible to make significant progress towards a more sustainable economy.

Another important aspect, which the conclusions obtained from these respondents demonstrate, is that small and constant changes in individual behaviour can have an overall positive impact on the environment and society, and that by adopting circular practices and capitalising on resources, one can contribute to building a sustainable future for future generations.

The results of the qualitative research, carried out among businesses in the Romanian context, by using the in-depth interview method, show that there is an increased interest in the field of circular economy and in the principles of sustainable development, in the business environment, in which waste collection programs and initiatives have already been implemented, as well as initiatives related to the production and offering of sustainable products.

The interviewed specialists from the business environment are increasingly interested in the impact of waste on the environment and the impact of the activity of the companies it represents on natural resources and aim to take measures to reduce them. The principles of the circular economy are perceived as solutions to such problems, being considered effective tools for reducing waste and conserving resources. However, business professionals believe that considerable financial investments are needed to successfully integrate the circular economy model into business.

Also, significant obstacles in the implementation of sustainable, circular economy practices are represented by the low level of education of Romanian consumers, the increased initial costs and the lack of active involvement of public authorities, at national level, in this field. Even so, there are specialists who have managed to overcome these obstacles and successfully implement circular economy practices in their businesses, considering them an opportunity to create new products and services, recover resources and create close ties with customers. The importance of education and awareness among consumers on these topics, however, remains a very important aspect for the success of the circular economy in business.

The results of the research on the opinions, attitudes and behaviors of Romanian consumers towards circular economy solutions for sustainability indicate that the majority of respondents believe that adopting circular economy principles can have a significant positive impact on the

environment. Of the respondents, 62.5% said that they apply the principles of the circular economy both directly, through actions carried out directly, and indirectly, through the purchases made.

The most common circular economy direct actions reported included the selective collection of household waste, the purchase of products made of reusable or plastic-free materials, and the reuse of products and packaging. In terms of indirect circular economy actions, the purchase of local and sustainable products was the most common among the sample members. Respondents indicated that circular economy actions are relatively easy to achieve, according to the average appreciation score of 4.06 points. Most respondents consider circular economy practices to be quite accessible, with an average rating of 4.06 points, and 87.6% are involved in recycling actions on a weekly basis. Respondents also highlighted benefits such as minimizing the carbon footprint and reducing the use of new resources as the most important in the circular economy model. Moreover, motivations such as awareness of the seriousness of the situation and reasons for saving were the main aspects nominated for involvement in sustainable practices at the level of the sample members.

Regarding the knowledge of brands involved in sustainable actions, 62.3% of respondents said they know brands involved, from information sources such as product labels, social networks and online advertisements. Respondents also indicated that aspects such as the use of recyclable packaging and partnerships to increase positive impact are the most appreciated by them in a sustainable brand.

In general, it can also be seen that the majority of respondents consider all the mentioned sustainable practices for the goods manufacturing sector to be important. However, there are differences in the degree of importance given to each practice, namely: the promotion of products and services by offering sustainable promotional gifts has the highest average of appreciations, i.e. an average score of 4.31 points, the practice of using sustainable materials in the manufacture of products has an average score of 4.25 points, and the implementation of general sustainable production practices, such as energy efficiency, waste reduction, CO<sub>2</sub> emission reduction, has an average score of 4.00 points.

Overall, the results of the quantitative research, regarding the opinions, attitudes and behaviors of Romanian consumers towards circular economy solutions for sustainability, suggest that participants are receptive to circular economy and sustainability measures, highlighting a positive trend towards adopting these practices in their daily lives.

During the research carried out to measure the attitudes, perceptions and behaviors of Romanian consumers participating in the national SGR packaging collection program, it was found that most consumers (98.9%) have knowledge about the functioning of the SGR program and that 96.4% of respondents participated in the collection scheme. At the same time, the main material returned within the program was plastic, with a proportion of 84.3% of the responses.

Regarding the level of satisfaction with the program, the average score of appreciations is 3.52 points, most of the respondents evaluating their own satisfaction with the program with

appreciations of 4 or 5 points. 82.9% of the participants indicated that the main challenge encountered in interacting with the program is related to the failures at the collection machines. As for the frequency with which the packaging is handed over, most of the participants said that they return this waste weekly.

The main source of information about the program was the internet and social networks (55.4%), and most respondents (81.5%) considered the implementation of the SGR program to be a good decision. Regarding the effectiveness of the program on environmental protection, it was positively evaluated, with an average score of 4.27 points. Finally, 41.07% of respondents indicated packaging for cleaning products and detergents as the category that should be introduced in the SGR system in the next 5 years.

From the most interesting research results, one can see a need for education and involvement for consumers, as well as a need for political support and sources of financing for investments and for the development of technologies in this field, of the circular economy. Experts and decision-makers in the Romanian business environment prioritize the development and promotion of sustainable products and services, and at the consumer level, in the decision to buy products or services, it is important for a brand to be sustainable. Both specialists and non-specialists stressed that none of the main actors will be able to make visible progress on their own in the transition to a sustainable economy.

The results of the research highlight the situation in Romania and implicitly bring a significant contribution to the scientific knowledge in this field, determining the design of two marketing programs. Although the nature of the research carried out limits its generalisation on a large scale, it provides valuable information and suggests potential directions for future research on issues related to the field of marketing and the circular economy.

The field of circular economy is a strategic area in terms of the transition to a sustainable economy (Barros et al., 2021). The shift from linear to circular models is supported by investments in circular economy initiatives, which can create value and generate economic growth, and can also contribute to efforts to protect natural capital components (Scheel, Aguiñaga, Bello, 2020).

The shift to a low-CO<sub>2</sub> economy may primarily involve broad political, legislative and technological changes to meet climate change mitigation and adaptation requirements (Saraji, Streimikiene, 2023). Second, the green transformation can also involve social investments to achieve the SDGs under the 2030 Agenda (Mishra et al., 2023). In this regard, proposals and implementations of green/social projects play a critical role in supporting and accelerating the transition (Tenuta, Cambrea, 2022), even if there are currently no clearly established criteria for their implementation in the EU Taxonomy or in national regulations (Dănescu et al., 2021).

When all parties involved need to respond to a change in order to make visible progress in the transition to a sustainable economy, the necessary planning is strategic. If there is no intention to change something, then there is no need for planning (Bratt, Sroufe, Broman, 2021). However,

technology and digitalization have brought and bring today a continuous change and are at the forefront of economic development. They stimulate business growth in most economic sectors and connect the market, which is becoming increasingly global (Hoosain, Paul, Ramakrishna, 2020). Technology and digitalization have also accelerated major changes taking place in marketing, such as sourcing, social media, and mobile access to media. New technologies and digitalization have also generated, at the same time, new products, services and processes, which have contributed to a certain extent to the lack of sustainability of today's world (Hoang, Nguyen, Le, 2022).

On the other hand, technology is expected by many to solve global problems, by generating energy from renewable sources, by making better use of resources, by eliminating waste and overcoming environmental pollution, for a future development that is more sustainable. Marketing is also at the heart of many of these new initiatives (Ki et al., 2020).

Therefore, technology and digitalization are an important driver, both of the pace and magnitude of change in marketing, because they provide immediate methods of gathering marketing information from various markets, provide faster and more efficient analysis methods, and contribute to anticipating the future needs and desires of customers, revolutionizing individual and organizational communications. They provide the enabling mechanism through which effective and integrated responses to changing markets can be made and are thus essential elements in the development of marketing strategies (Shpak et al., 2020; Herhausen et al., 2020; Kumar, Ramachandran, Kumar, 2021). More specifically, the choice of strategies for implementing the marketing mix is based on the development of technologies and digitalization, facilitating the process of learning and sharing best practices and allowing a more efficient control of the various activities of a company (Caliskan, Özkan Özen, Ozturkoglu, 2021).

For sustainable resource management, consumer knowledge of sustainable circular economy principles and practices and waste collection and recycling programs are considered one of the critical success factors (Borthakur, Govind, 2019). For recycling, however, there is little motivation from consumers, and improper waste storage is widely practiced. Thus, in order to achieve a higher recycling rate, the dissemination of information about recycling programs and consumer participation in the system must be ensured (Bai, Wang, Zeng, 2018). Consumers play a leading role, from the overall perspective of the inverted supply chain (Islam, Huda, 2018), while their behaviour is one of the critical aspects of the SDG of sustainable production and consumption (UN, 2015).

After examining the results obtained in the research for the doctoral thesis, the author identified the need to develop a project at national level, using a marketing program as a tool. The project proposed by the researcher would consist of creating an integrated digital platform, which would include all the programs and projects carried out at national level, in this sphere of the circular economy, and which would benefit from actions to promote its content, among consumers and at the level of the business environment.



The researcher also found that there is a pressing need for education among consumers in the field of circular economy and sustainability, so he also designed and proposed a project, with the help of a marketing program, through which educational materials are provided and various sustainable behaviors are promoted, with the help of paid partnerships with content creators. Moreover, by resorting to content creators who present their lifestyle on social networks or who are ambassadors of ecology and sustainable development, there is a possibility that some of these influential people will continue to present such content even after the end of the project, without necessarily being sponsored for this activity.

At the same time, at national level, communication on waste management is lacking, and in school curricula, which have been hardly updated in recent decades, in view of the inclusion of environmental protection education, it is in most cases insufficiently covered. Although some environment-related subjects have been introduced into school curricula for a long time, they have often been framed as optional, still leaving a large part of the adult population with little awareness of environmental and resource protection. As recommendations and solutions for this context, the government authorities indicate the promotion of education, awareness and information of citizens on the benefits and importance of selective collection, prevention and reuse of waste, to be supported by information and education programs (Guvernul României, 2022).

## PERSONAL CONTRIBUTIONS AND DISSEMINATION OF RESULTS

By intersecting marketing with the field of circular economy in Romania, the doctoral thesis explores how marketing policies and strategies can be used in the field of circular economy. The paper brings to the fore the possibilities of using marketing policies and strategies in the field of circular economy, the novelty of the thesis being given by offering useful perspectives on the impact of marketing policies and strategies on the promotion of circular economy principles and on the changes in consumer behavior towards the demand and consumption of sustainable products and services. Every aspect of this thesis has been designed and approached to be original, and all personal contributions support this approach.

In the first chapter related to the analysis and interpretation of the conceptual aspects specific to marketing and circular economy, the author made a detailed analysis of the main concepts specific to marketing and circular economy in the literature, highlighting the connections between the two fields and their impact on the environment and society.

In the next chapter, "*Chapter 2. The current state of knowledge on the circular economy and the influence of marketing in the field*", the researcher identified and interpreted the current trends in terms of the circular economy and highlighted the importance of involving marketing in promoting this concept, especially in the context of achieving a sustainable economy.

For the realization of the third chapter, which contains the qualitative research on *the theme "Opinions, attitudes and habits of adult consumers in Braşov towards the field of circular economy and the achievement of sustainable development"*, two group interviews were planned and conducted by the researcher. The author identified and selected the groups of participants for interviews, taking into account the criteria of age, gender, occupation and education level of the participants, in order to obtain perspectives on the topics and themes studied, related to the circular economy and sustainable development. The researcher also analyzed qualitative data obtained from using the group interview method, identifying common trends and differences between participants' opinions, attitudes and behaviors. He also drafted and structured the entire qualitative research based on the group interview in chapter 3, focusing on the opinions and experiences of the participants in order to provide a complete and detailed picture of the participants' consumption behavior specific to the circular economy.

Through in-depth interviews, conducted in the fourth chapter, the researcher managed to obtain relevant and valuable perspectives from different professionals and experts from various economic sectors. These perspectives contributed to the deep understanding of the implications of adopting circular economy practices in the context of business in Romania. At the same time, this information was essential for substantiating the arguments and recommendations within the doctoral thesis and brought an added value to the entire work.

Further, for the elaboration of the next chapter, "*Chapter 5. Quantitative marketing research conducted in order to investigate commitments and new trends in the field of circular economy and*

*sustainable development at the level of consumers in Romania*", the researcher conducted two quantitative researches, taking into account the literature reviewed and the exploratory results of the qualitative research carried out previously.

The chapter with which the doctoral thesis ends is represented by the proposals related to the launch of specific marketing programs, these being based on the results of the research within the doctoral thesis and created exclusively by the researcher.

Also, in the research process, an essential element is represented by the dissemination of scientific results, in order to allow researchers to share their results and findings with the rest of the scientific community, as well as with the general public. Effective dissemination is important to ensure accessibility, transparency and contribution to the advancement of the research field. The results of the qualitative and quantitative research, carried out for the realization of the doctoral thesis, were scientifically disseminated by the author, during the studies, through participation in various scientific conferences and through the publication of scientific articles, in journals indexed in databases (*ISI and BDI*), such as: *Transilvania University Bulletin, Sustainability, Journal of Smart Economic Growth*.

## **FUTURE RESEARCH DIRECTIONS**

During the research carried out within this doctoral thesis and the actual elaboration of the thesis, several future research directions were identified by the author, the field of circular economy being a complex field, and the interconnection of the circular economy being a complex field, and the interconnection of the circular economy with various marketing policies and strategies presenting a significant potential for development in the academic environment. In this context, the ideas that may take the form of future scientific research, within the topic of the use of marketing policies and strategies in the field of circular economy, are the following:

- Conducting a quantitative research at the level of representatives of small-scale local businesses that sell products with warranty packaging, from the SGR system, and who have been obliged by the legislation in the field to participate in the national packaging collection program and to arrange spaces for the storage of packaging returned by consumers until they are taken over by the authorized partners.
- Conducting a qualitative research based on the in-depth interview method with the participation of a much larger number of specialists with knowledge and experience in the field of circular economy, sustainability and marketing activity is another future research direction.
- The qualitative research based on the in-depth interview method presents an analysis of the qualitative data from the answers of the interviewed specialists, the analysis being carried out on the topics of discussion established before the research itself. A future direction of research can be represented by the exploration in more detail of the social aspect, the third dimension of sustainability, after economic and environmental aspects.
- The analysis of qualitative research carried out through the in-depth interview method can also have future research directions represented by an even broader content analysis of the researched aspects or other aspects related to the circular economy, such as measures to reduce CO<sub>2</sub> emissions, measures in research and innovation, but also others.
- Another direction can be represented by conducting a larger quantitative research, with a larger number of respondents, close to 1067 respondents. More specifically, quantitative research in which it is possible to investigate in more detail and measure consumer perceptions, attitudes and behaviors regarding products and services with a low environmental impact or regarding communication and branding strategies, used by companies to promote these products and services in order to gain consumer trust and loyalty.
- Quantitative research can also be carried out to quantify the impact of the implementation of circular economy practices and principles, within different industrial sectors, on the competitiveness and sustainability of companies. It can look at how companies implement



marketing strategies to support these sustainable circular economy solutions and how they influence the economic and environmental performance of companies.

- Conducting qualitative research among NGO representatives on sustainability and environmental issues could be another future research direction. This research could involve the method of in-depth interviews with representatives of NGOs that focus on the circular economy, environmental protection and sustainability. Through such qualitative research, one could identify the successes, challenges and strategies used by NGOs to achieve their goals. The results of this research could serve as a basis for the development of more effective policies and programmes in these areas, and could provide useful information and valuable insights for other organisations or NGOs wishing to get involved in issues related to the circular economy and supporting sustainability.

These research tracks could make a significant contribution to understanding how the circular economy can be effectively promoted and implemented in different industrial contexts and provide practical guidance for companies, public authorities and other stakeholders to harness the potential of this approach in academia.

## LIST OF PUBLICATIONS

### A. Papers in Web of Science indexed publications

1. **Mocanu, A.A.**, Brătucu, G., Ciobanu, E., Chiţu, I.B., Szakal, A.C., 2024. Can the Circular Economy Unlock Sustainable Business Growth? Insights from Qualitative Research with Specialists in Romania. *Sustainability*, 16(5), Impact Factor JCR 2022 3,90, AIS: 0,515; SRI:0,823, <https://doi.org/10.3390/su16052031>
2. Szakal, A.C., Brătucu, G., Ciobanu, E., Chiţu, I.B., **Mocanu, A.A.**, Ialomiţianu, G., 2024. Exploring Influencing Marketing—Consumer Insights and Creators’ Perspectives. *Sustainability*, 16(5), Impact Factor JCR 2022 3,90, AIS: 0,515; SRI:0,823, <https://doi.org/10.3390/su16051845>

### B. Papers in BDI indexed publications

3. **Mocanu, A. A.**, Brătucu, G., 2022. How sustainable local businesses operate?. *Bulletin of the Transilvania University of Brasov*. Vol. 15 (64) No. 2, Series V: Economic Sciences, pp.19-24; <https://doi.org/10.31926/but.es.2022.15.64.2.2>
4. **Mocanu, A.A.**, Szakal, A.C., 2023. Digital Marketing Strategies: A Comprehensive Literature Review. *Bulletin of the Transilvania University of Brasov*. Vol. 16 (65) No. 2, Series V: Economic Sciences, pp.37-44; <https://doi.org/10.31926/but.es.2023.16.65.2.4>
5. Szakal, A., **Mocanu, A.A.**, 2024. A QUANTITATIVE ANALYSIS OF TRANSYLVANIA UNIVERSITY STUDENTS ATTITUDES TOWARDS THE RESEARCH AND DEVELOPMENT INSTITUTE OF TRANSYLVANIA UNIVERSITY OF BRAŞOV. *JOURNAL OF SMART ECONOMIC GROWTH*, Vol. 9 (1), pp.1-16; <https://www.jseg.ro/index.php/jseg/article/view/257/152>
6. Szakal, A.C., **Mocanu, A.A.**, 2024. A Perspective of the Economic Environment on the Research and Development Institute of Transylvania University of Brasov. *Bulletin of the Transilvania University of Brasov*. Vol. 17 (66) No. 1, Series V: Economic Sciences, pp.109-118; <https://doi.org/10.31926/but.es.2024.17.66.1.10>

### C. Participation in international conferences

1. **Mocanu, A. A.**, Brătucu, G. (2022) - Business for sustainable development. Proceedings of the 5<sup>th</sup> International Conference “Inclusive and Sustainable Economic Growth. Challenges, Measures and Solutions” (ISEG), 27 May 2022, Braşov, Romania or *International Conference „Inclusive and sustainable economic growth. Challenges, measures and solutions” (ISEG), Braşov (online), 5th Edition, 27<sup>th</sup> of May 2022.*
2. Bulboacă, Ş., **Mocanu, A. A.**, Szakal, A. C. (2022) - Preventing Food Waste Through Digital Media. Proceedings of the 13<sup>th</sup> International Conference of Doctoral Students and Young Researchers “Emerging Markets Economics and Business”, 13<sup>th</sup> Edition, Oradea (online), 25<sup>th</sup> of November, 2022. or or *International Conference of Doctoral Students and Young Researchers” Emerging Markets*

*Economics and Business*", 13th Edition, 25th November, 2022, Oradea. 65 (pagina); Publicată în Emerging Markets Economics and Business. Contributions of Young Researchers, 65; <http://steconomiceuoradea.ro/wp/wp-content/uploads/2023/01/VOLUM-final-doctoranzi-2022.pdf>

3. **Mocanu, A. A.**, Brătucu, G. (2023) - A Brief Analysis of the Circular Economy in Romania, with a Particular Focus on Waste Prevention and Reduction Programs. *International Conference „Inclusive and sustainable economic growth. Challenges, measures and solutions” (ISEG), Braşov (online), 6th Edition, 26-27th of May 2023.*

4. **Mocanu, A. A.**, Szakal, A. C. (2023) - Exploring the Potential of Digital Platforms in Promoting the Circular Economy. Proceedings of the 14th International Conference of Doctoral Students and Young Researchers "Emerging Markets Economics and Business", 14th Edition, Oradea (online), 24th of November, 2023. Publicată în Emerging Markets Economics and Business. Contributions of Young Researchers, 165 (pagina); Publicată în Emerging Markets Economics and Business. Contributions of Young Researchers, 165; <https://steconomice.uoradea.ro/ro/images/Cercetare/Conferinte/EMEB-doctoranzi/2023/volum.pdf>

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