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THE LINK BETWEEN SUSTAINABILITY MARKETING AND BIOECONOMY

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Abstract

This paper presents the role of sustainability marketing in the development of the bioeconomy. The link between sustainability marketing and the bioeconomy is the sustainability-oriented behavior of actors. Sustainability marketing exerts an influence on the sustainability-oriented behavior of actors. The behavior of all actors in one country, from the government, via organizations, to individuals exerts an influence on the bioeconomy. By examining the literature, guidance to the holistic approach to the bioeconomy as the framework for the integration sustainability-oriented activities of actors is presented. Consumer behavior is the most important in marketing. Consumer behavior has an influence on the survival of organizations. Accordingly, in addition to reviewing the literature, the behavior of the existing and potential consumers is investigated herein. We use a focus group to conduct our market research. The focus group provides information about the influence of sustainability marketing on: 1) consumer behavior, 2) the sustainability-oriented behavior of individuals, and 3) the bioeconomy. There are two key conclusions. First, the conclusion is that sustainability marketing can influence on sustainability-oriented behavior of individuals and contribute to achieving a sustainable bioeconomy. Second, this paper highlights the formation of a sustainability marketing platform as the base for the influence of sustainability marketing on the bioeconomy, sustainable development and sustainability.

Key words: bioeconomy, sustainability, sustainability marketing, sustainable development

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1. Introduction

The bioeconomy has been gaining in importance in recent years (Aguilar et al., 2018a, 2018b; Arancibia, 2013; Carraresi et al., 2018; Dinu, 2018; Dunham et al., 2012; Dupont-Inglis and Borg, 2018; Egea et al., 2018; Imbert et al., 2017; Kircher et al., 2018; Lainez et al., 2018; Lokko et al., 2018; Malyska and Jacobi, 2018; Patermann and Aguilar, 2018; Philp, 2018; OECD, 2009; Sasson and Malpica, 2018; Schütte, 2018). The bioeconomy development is based on the integration of: economic, social and environmental issues; science and technology, the public and the private sectors; the support and activities of all actors. Sustainability marketing is an important issue when the bioeconomy is concerned (Belz, 2008; Belz and Peattie, 2009; Belz and

Schmidt-Riediger, 2010; Chebeň et al., 2015; Kumar et al., 2012, 2013; Peattie and Belz, 2010; Rakic and Rakic, 2015a, 2015b, 2017a, 2017b, 2018).

This paper links sustainability marketing and the bioeconomy, which can be perceived as the sustainability-oriented behavior of many actors, ranging from governments, via organizations, to individuals. This paper is aimed at presenting the influences of sustainability marketing on the sustainability-oriented behavior of actors, indirectly on the bioeconomy, sustainable development and sustainability (Fig. 1).

The aim of the sustainability marketing is to inform all actors about sustainability-oriented behavior and its influence on this behavior. The paper is organized as follows: Section II is devoted to the theoretical foundations.

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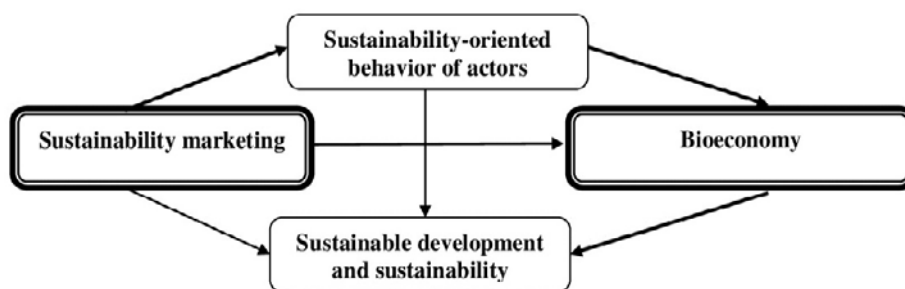


Fig. 1. The sustainability-oriented behavior of actors as the link between sustainability marketing and the bioeconomy

Bioeconomy and sustainability marketing have been particularly considered. At the beginning of the second session, we start with the bioeconomy. Sustainability marketing influences the bioeconomy, so the theoretical considerations of sustainability marketing follow, as well as the links between sustainability marketing and the bioeconomy. In Section III, the research methodology is presented. Consumer behavior may have an influence on the behavior of many other actors, including organizations. That is the reason why we decided to conduct qualitative consumer research through focus groups. Section IV accounts for the results. Finally, the conclusions are given at the end of the paper. This paper proposes the creation of a sustainability marketing platform that would bring together all of the stakeholders who could influence the implementation of sustainability marketing depending on the development of the bioeconomy, sustainable development and sustainability.

2. Theoretical foundations

The development of bioeconomy is based on the integration of economic, social and environmental issues (Aguila et al., 2018b; Lokko et al., 2018; Małyska and Jacobi, 2018). People are currently being confronted with challenges, among which are food security, the security of energy supply, the resource efficiency of global production chains and climate change, which has triggered an increased awareness of the fragility of the biosphere and the need for our societies to adopt the more sustainable production and consumption models based on the bioeconomy (Aguilar et al., 2018a). The term bioeconomy was for the first time used by the Biomass Research and Development Board in 2001 in order to describe a revolution, the technological return to the sustainable past through the implementation of a new model of economic development (Arancibia, 2013). According to the OECD (2009), the bioeconomy is “the aggregate set of economic operations in a society that use the latent value incumbent in biological products and processes to capture new growth and welfare benefits for citizens and nations”.

The key industrial sectors from that derive their raw materials and/or key components along the value chain from natural resources and biological processes constitute the bio-based economy or bioeconomy

(Lokko et al., 2018). The prime driver for the bioeconomy is the need to ensure the availability of sufficient biomass feedstock for food, feed, energy and industrial uses (Małyska and Jacobi, 2018). The term “bioeconomy” encompasses all of the industrial and economic sectors that produce, manage and otherwise exploit biological resources and related services. The sustainable use of biological resources in production processes is at the core of new bioeconomy value chains. Increased knowledge in life sciences encourages the replacement of fossil fuels and fossil-derived materials by bio-derived materials, minimizing the environmental impact and recycling residues towards more sustainable development (Sasson and Malpica, 2018). The bioeconomy has established itself worldwide as the mainstay for achieving a sustainable economy. Like digitalization, biologization as the guiding principle of the bioeconomy has a potential to effect fundamental change in industry. In the long term, biologization will be exactly as significant as a cross-cutting approach as digitalization already is today. Biologization will pave the way for “Industry 5.0” in the same way as digitalization triggered “Industry 4.0”. It is also obvious that the two trends will be mutually beneficial. Industry 4.0 and Industry 5.0 will merge seamlessly into one another (Schütte, 2018).

According to The 2030 Agenda for Sustainable Development (UN, 2015), in order for our world to transform “on the road to 2030”, multi-stakeholder collaboration is needed. Stakeholders are: “governments as well as Parliaments, the UN system and other international institutions, local authorities, indigenous peoples, civil society, business and the private sector, the scientific and academic community - and all people.” Many actors, such as the representatives of civil society, policy makers, regulators, financial operators, academia and the industry, take part in stakeholder dialogues as integral bioeconomy stakeholders (Aguilar et al., 2018a; Egea et al., 2018; Małyska and Jacobi, 2018; Patemann and Aguilar, 2018). There is the need for the strengthening of collaboration between science and the industry, as well as the society and policy makers, and it should be based on secure public-private partnerships (Małyska and Jacobi, 2018). To develop stronger relationships between conventional and non-conventional players is imperative (Dupont-Inglis and Borg, 2018). “Bioeconomy presents a great opportunity to reinforce

the alliances between the political and intellectual élites and civil society at large” (Aguilar et al., 2018b). The stakeholder groups of the ‘Plants for the Future’ European Technology Platform (ETP), representing the industry, academia and the farming communities, jointly developed the three action plans based on the pillars of innovation, research and education, with a view to contributing to the creation of a stronger bioeconomy in Europe (Małyska and Jacobi, 2018). The bioeconomy needs excellence in science-based concepts (Aguilar et al., 2018b). For a successful development of a bioeconomy, there must be strong knowledge-based expertise, available or yet to be created by science and through research (Aguilar et al., 2018a). The focus is displaced to technology and technological solutions (Arancibia, 2013; Małyska and Jacobi, 2018). Biotechnology is the core lever of the bioeconomy (Aguilar et al., 2018a). Global, international and regional organizations, and bio-industry associations promote the bioeconomy (Arancibia, 2013). The bioeconomy can be thought to be a powerful political device (Arancibia, 2013; Pavone and Ciencia, 2012). To maintain the competitiveness of the OECD and EU countries in relation to emerging economies (Arancibia, 2013; Pavone et al., 2011), the new model of growth is based on the commercialization of scientific and technological innovations. The bioeconomy is a concrete version of this “knowledge economy,” in which biotechnology, as well as natural and biological resources, play a crucial role (Arancibia, 2013; Pavone and Ciencia, 2012). There is the need for introducing a long-term, stable and transparent policy and an incentive framework in order to promote the bioeconomy. The EU policy environment could be more welcoming towards innovative industrial biotechnology products. Financial incentives or tax reductions could spur investments while public procurement for industrial biotech products could support market creation (Dupont-Inglis and Borg, 2018). The bioeconomy is the challenge of the century for policy makers (Philp, 2018).

In 2012, the European Union (EU) and the USA adopted their respective strategies for the bioeconomy (Aguilar et al., 2018a). Simultaneously, other countries and international organizations developed other approaches to the concept of the bioeconomy (Patermann and Aguilar, 2018). The Global Bioeconomy Council was established in 2009 by the German Government so as to provide independent pieces of advice on the development of a sustainable bioeconomy in Germany and globally (Egea et al., 2018). The European strategy for the bioeconomy was aimed at driving the transition from a fossil fuel-based economy to a bio-based economy, with research and innovation being the engine of this transformation and the overall objective of the sustainable production of the biomass and its conversion into several bioproducts, ranging from food and feed to high added-value products and bioenergy (Egea et al., 2018).

From farming to forestry, construction to

consumer goods, advanced manufacturing to chemicals and pharmaceuticals, all of the sectors must become more productive and resource-efficient (Dupont-Inglis and Borg, 2018). The bioeconomy is traditionally well-established in agriculture and forestry, the wood-processing, paper, textile, chemical, food, beverage, and pharmaceutical industries, as well as in bio-fuel and bioenergy (Kircher et al., 2018). Contributions of industries and companies in several industrial sectors (such as the automotive, construction, textiles, packaging, food and feed sectors) to bioeconomy are:

- sustainability marketing;
- the development of the workforce that can maintain Europe’s competitiveness in industrial biotechnology (Dupont-Inglis and Borg, 2018);
- knowledge-based sustainable innovation (Lainez et al., 2018);
- an increasing use of bio-derived materials and the production of the composites of the fossil and biological origins (Aguilar et al., 2018b); the production and use of bio-based raw materials; transition towards an increase in bio-based components in each of these sectors (Aguilar et al., 2018b); the sustainable use of resources (land, water, nutrients, biodiversity) (Małyska and Jacobi, 2018);
- the sustainable value chain and supply chain – a focus on the development of new bio-based value chains via new bio-refining concepts (Patermann and Aguilar, 2018); encouraging and facilitating interdisciplinarity along the bioeconomy value chain (Małyska and Jacobi, 2018).

Most often, citizens are not aware of the high social and economic rates of return that public and private investments in plant research and innovation generate in the entire value chain, in particular in a global context (Małyska and Jacobi, 2018). The role of sustainability marketing is to improve the public perception and awareness of industrial biotechnology and bio-based products. Customers and end users are not sufficiently aware of what industrial biotechnology is or of the environmental and social benefits offered by its products. Information campaigns targeted towards these audiences may spur market development, but in order to be successful, such campaigns must be clearly based on the identification of knowledge gaps (Dupont-Inglis and Borg, 2018). Customers are responsible for buying sustainable products and sustainable buying behavior. Consumers are responsible for sustainable consumption and waste disposal.

Successful organizations adapt their management and marketing strategies to marketplace changes and environmental changes (Arnett and Wittmann, 2014; Gavrilescu et al., 2018). Sustainability marketing is an important basis for sustainable development (Belz, 2008; Belz and Peattie, 2009; Belz and Schmidt-Riediger, 2010; Kumar et al., 2012, 2013; Peattie and Belz, 2010; Rakic and Rakic, 2015a, 2015b, 2017a, 2017b). Marketing academics should play a more important role in the improvement of sustainability education

and research. Sustainability needs to be integrated into subjects, such as marketing, in order to improve sustainability education and research (Kemper et al., 2020). Sustainability marketing has a revolutionary role as the driver of transformations for actors' sustainability-oriented mindsets and sustainability (Rakic and Rakic, 2017a, 2017b). Sustainability marketing may influence the sustainability-oriented behavior of actors on both the supply and the demand sides. In short, sustainability marketing may affect sustainable consumption and sustainable production. Marketing for sustainability includes the creation and sustaining of:

- the sustainability-oriented market – an influence on consumers and the public, and
- sustainability-oriented value – the marketing mix.

- Although most people prefer a more sustainable product, only a limited number of green buyers purchase those products. This gap between a 'sustainable intention' and 'behavior' indicates the complexity of consumer behavior (Visser et al., 2018). Sustainability marketing may influence a sustainability-oriented consumer behavior (Kemper et al., 2020; Rakic and Rakic, 2015b; Visser et al., 2018). A consumer's buying behavior is influenced by sustainable consumer patterns. Consumers can create, share and comment upon the content of the sustainable patterns of behavior via word-of-mouth (WOM) communications, digital media and particularly user-generated (consumer-generated) media (Rakic and Rakic, 2015b). The sustainable lifestyle of an individual (SLOI) is the base. The SLOI stands for the sustainable pattern of the behavior of an individual in the family, the process of product purchase and consumption, at work (at the organization he or she works) and the society and the environment he or she lives and works (Rakic and Rakic, 2015b). The SLOI includes the sustainable behavior of an individual as:

- a member of the family (sustainable family behavior);
- an individual as a consumer (sustainable consumer behavior);
- an individual as an employee (sustainable organizational behavior);
- an individual as a member of the society and the environment (sustainable behavior of the society).

To ensure sustainable consumption, it is necessary to attract mainstream consumers with sustainable products (Mont and Plepys, 2008). Marketing for sustainability means the extension of the conceptualization of the marketing mix so as to drive value for individuals and a society at large – the creation/co-creation of individual and social values (Pomeroy, 2017).

The marketing mix for sustainability includes the traditional "4P" instrument of the marketing mix, plus the "3Ps" (people, physical evidence and processes), and additionally principles, a promise, and

a partnership (Pomeroy, 2017).

Sustainable patterns of the behavior of all the actors are needed for the total sustainability. "While sustainability is an ethical issue, it is also becoming relevant from a marketing standpoint and can be particularly decisive in stakeholder" (Baldassarre and Campo, 2016). Sustainability marketing (Rakic and Rakic, 2015a) and the sustainable lifestyle marketing of an individual (SLMOI) can have an influence on the sustainability-oriented attitudes and behavior of actors (Rakic and Rakic, 2015b). The SLMOI is based on the presentation, creation and maintenance of the SLOI. The definition of the SLMOI has been derived on the basis of the definition of marketing of the American Marketing Association (AMA, 2013). "The SLMOI is the activity, a set of institutions and processes for creating, communicating and maintaining the SLOI". Many actors are involved in SLMOI. The main actors are governments, profit organizations; consumers; educational, health-care, non-profit and various environmental organizations and the media. Guidance to the holistic approach to the bioeconomy as the framework for actors' integration activities (Table 1) is created by examining the literature.

The idea of sustainability platforms is not new. There are platforms related to sustainable development and sustainability, such as: "The Sustainable Development Knowledge Platform" formed by the United Nations. Numerous actors present and implement some activities in the function of sustainable development and sustainability. The activities carried out by some actors are insufficiently represented, or they do not have a large number of online users to follow them, understand content and accept recommendations. Sustainability marketing calls for something beyond the mere creation of a sustainability-oriented product and making it accessible to target consumers.

Organizations also have to communicate with actual and potential stakeholders and the general public as well. The communications program needs to be strengthened in order to take advantage of the sustainability-oriented behavior of various actors and the general public. Good portal content is not enough. Integrated marketing communications can exert a greater impact on the sustainability-oriented behavior of actors. We need communications aimed at increasing the number of the online users who: 1. follow the content, 2. engage themselves by liking, commenting and sharing content from portals and social networks, and 3. engage themselves by creating and posting content about their own sustainability-oriented behavior, as well as the sustainability-oriented behavior of other actors. This would result in a greater promotion and acceptance of the sustainability-oriented mindset by a larger number of online users. The focus of the proposed integrated platform is a marketing approach to sustainable development and sustainability.

Table 1. The holistic approach to the bioeconomy: the framework for actors’ integration activities

<i>Actors</i>	<i>Activities</i>
Global, international and regional organizations, bio-industry associations (such as the UN, UNIDO, OECD, EU, EuropaBio, European Association of Bioindustries, etc.)	<ul style="list-style-type: none"> • Bioeconomy development • Investments in research and innovation • Research projects and programs • Promotion of stakeholder engagement and collaboration • Presenting scientific and technological trends in the bioeconomy • Presenting the examples of the best practices in journals, at conferences
<ul style="list-style-type: none"> • Schools • Faculties • Academies 	<ul style="list-style-type: none"> • Knowledge management – the development of the knowledge base for the bioeconomy development, sustainable development and sustainability; changes in the systems of education and training • Intellectual capital, human capital • Research projects and programs • Presenting scientific and technological trends in the bioeconomy • Presenting the examples of the best practices in journals, at conferences
<ul style="list-style-type: none"> • Governments • Countries 	<ul style="list-style-type: none"> • The circular economy • Strategies for the bioeconomy • Stakeholders’ dialogues • Systems of education and training • Research projects and programs
<ul style="list-style-type: none"> • Industries • Companies 	<ul style="list-style-type: none"> • Sustainability marketing • Biotechnology, innovative processes, innovations • Research and development in the function of the bioeconomy development and sustainable development • Responsible use of raw materials; sustainable production; the production and use of bio-based raw materials – the sustainable use of resources (land, water, nutrients, biodiversity) • The sustainable value chain, the sustainable supply chain • New materials, new energy resources, new products/offerings (new food, pharmaceutical and chemical products)
<ul style="list-style-type: none"> • Customers 	<ul style="list-style-type: none"> • Buying sustainable products • Sustainable buying behavior
<ul style="list-style-type: none"> • Consumers 	<ul style="list-style-type: none"> • Sustainable consumption • Waste disposal

The content of the sustainability marketing platform could be presented from several aspects, such as:

- the sustainability-oriented behavior of people (all interested individuals, especially so influencers and opinion leaders, may present the power of sustainability-oriented behavior)
- the sustainability-oriented behavior of organizations (sustainability marketing calls upon organizations to build sustainable development and sustainability into their marketing practices)
- the sustainability-oriented behavior of different stakeholders and the general public
 - “interesting” content for the general public, as the one target audience, and professional content for the professional public, as the second target audience
 - the daily presentation of the sustainability-oriented behavior of a growing number of individuals and organizations with the aim of achieving sustainability-oriented mindset of actors
 - a promotion through social networks, such as Facebook and Instagram, in order to increase the coverage (the number of active and passive actors) and the engagement of actors
 - increasing the number of followers, the interaction with online users, the engagement of users on social networks

- texts, pictures and videos of people, the planet and a profit (“3Ps”).

The strategy of content marketing and the selection of different media aim to provide as much coverage as possible and attract as many online users as possible. The ultimate goal is the impact of the platform on the behavior of as many actors as possible in accordance with the principles of sustainable development and sustainability.

3. Research methodology

“The customer is the king” is a business mantra in the marketing accentuation of the importance of customers. For that reason, we chose to carry out a study of customer behavior (in Serbia). We opted for a focus group as the qualitative research procedure. Focus groups were homogeneous in terms of the buying behavior when bioproducts (or bio-based products) are concerned. The participants in the first focus group bought and consumed bioproducts. The participants in the second focus group did not buy and did not consume bioproducts. Both focus groups included 10 members. One of the co-authors of this paper worked in a research marketing agency (before working at university) and she applied her practical experience and knowledge as a focus group moderator.

The main purpose of the focus group interviews was to gain insights from the two groups of people into bioproducts and the link between sustainability marketing and the bioeconomy. The objectives of the qualitative research study were to identify what influences consumer behavior to buy bioproducts in the first focus group (Table 2) or not to buy bioproducts (Table 3). Research into all of these factors may provide organizations and other actors with hints on how to reach and serve actual consumers more effectively.

After the research objectives, the moderator's outlines with questions for both focus groups are formulated (Table 4 and Table 5). Marketing is the science and art of satisfying customers' needs and wants, creating markets and values (marketing mixes). The moderator's outlines are focused on the following: 1) the determination of the customer and consumer of bioproducts, and 2) the four components of the marketing mix (the product, the price, the place and promotion). These indicators provide the input for sustainability marketing and make an influence on the sustainability-oriented behavior of actors. After a detailed outline had been developed, the participants were recruited and the focus group interviews were conducted. The first focus group's interview lasted for

two hours. The second group's interview lasted for two and a half hours. Following the group discussion, the data were analyzed, the findings were summarized and the actions were suggested. The summary of the findings is given in the next part of the paper.

4. Results and discussion

The focus groups have enabled our better understanding of customers' and noncustomers' perceptions, preferences and behaviors concerning the bioproduct category. The focus groups have enabled us to obtain a preliminary customer reaction to the instruments of the marketing mix.

The majority of the participants of both focus groups were confused by the question of what the products are. They wondered if organic products, bioproducts and eco-products were synonymous terms. They concluded that bioproducts were the same as organic products.

The participants of the first focus group (those saying they buy bioproducts) mostly buy organic food, and above all – organic fruits and vegetables. They described the consumers and customers of bioproducts as the people living on the principles of a healthy lifestyle.

Table 2. Qualitative research objectives in the first focus group

<p><i>The objectives of the qualitative research in the first focus group were as follows:</i></p> <ul style="list-style-type: none"> • Identify the relevant factors used by the participants in their purchasing bioproducts. • Identify the influence of the marketing mix (4Ps: the product, the price, the place and promotion). • Identify the characteristics of the customers buying bioproducts. • Identify the other aspects of the customer choice behavior that may be relevant to companies.

Table 3. Qualitative research objectives in the second focus group

<p><i>The objectives of the qualitative research in the second focus group were as follows:</i></p> <ul style="list-style-type: none"> • Identify the awareness of and affection for bioproducts. • Identify the relevant factors of the customer choice behavior and their decisions not to buy bioproducts. • Identify the factors that would influence the customer behavior change in the purchase of bioproducts. • Identify the other aspects of the customer choice behavior that may be relevant to companies.
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Table 4. The moderator's outline for the first focus group

<p><i>The moderator's outline for the first focus group with the screening questionnaire is formulated as follows:</i></p> <ul style="list-style-type: none"> • Determination of bioproducts customers and consumers. "How would you characterize someone who is a bioproducts customer and consumer?" • Product familiarity and knowledge – the definition of bioproducts. "What are bioproducts?" "What categories of bio-utility do you use?" • Evaluation of benefits. "When you think about bioproducts, what benefits come to your mind?" • Range of benefits. "Rank the benefits of bioproducts." • Brand awareness. "Which bioproducts are you familiar with?" • Evaluation of each brand. "Which brand do you prefer?" • Beliefs about and opinions on pricing. "Were the bioproducts fairly good for you to pay for them?" • Situational context. "When and where do you shop bioproducts?"; "When you shop in a traditional store, what's important to you?"; "When you shop in a digital store, what's important to you?" • Attitudes towards the integrated marketing communications (IMC) of bioproducts. "Which forms of the promotion of bioproducts have you noticed?"; "Do you engage in WOM communications as an Internet user?"; "How do you engage as an Internet user in WOM communications about bioproducts – do you write, comment or share the content?"; "Which forms of the promotion of bioproducts affect your customer choice behavior?"

Table 5. The moderator’s outline for the second focus group

The moderator’s outline for the second focus group is constructed as follows:

- **Determination of bioproducts customer and consumer.** “How would you characterize someone who is a bioproducts customer and consumer?”
- **Product familiarity and knowledge – definition of bioproducts.** “What types of bioproducts are there?”; “Which are the benefits of bioproducts?”
- **Attitudes towards buying bioproducts.** “Why don’t you buy bioproducts?”
- **Range of the relevant factors of customer choice behavior and their decisions not to buy bioproducts.** “Rank the reasons that affect your decision not to buy bioproducts.”
- Evaluation of changes in customer behavior. “Would you change your behavior?”; “Would you start buying and using bioproducts?”; “When and under what conditions would you start buying and using bioproducts?”
- **Range the customer behavior change in their purchasing bioproducts.** “Rank the reasons that would affect the change of your behavior and the decision to buy and consume bioproducts.”;
- **Hierarchy of bioproducts – the category importance.** “If you decide to buy bioproducts, rank the categories of the bioproducts that you would buy as per importance.”
- **Beliefs about and opinions on pricing.** “Would a change in the prices of bioproducts affect a change in your behavior so that you begin to buy and consume bioproducts?”
- **Weights of situational contexts.** “When and where would you shop bioproducts?”; “When you shop in a traditional store, what’s important to you?”; “When you shop in a digital store, what’s important to you?”
- **Attitudes towards the integrated marketing communications (IMC) of bioproducts.** “Which forms of the promotion of bioproducts have you noticed?”; “Do you engage in WOM communications as an Internet user?”; “How do you engage as an Internet user in WOM communications about bioproducts – do you write, comment or share the content?”; “Which forms of the promotion of bioproducts would affect your customer choice behavior?”

The respondents of the first focus group mainly identified the two benefits of bioproducts: the impact of food products on human health and the impact on the environment. The largest number of the respondents are familiar with the labels such as organic, eco- and bio-. Also, the majority of the respondents prefer the brands with the labels such as organic, eco- and bio. The respondents in the first focus group consider that the price of the product is higher due to the higher costs and that the price corresponds to the value of the product. They expressed a suspicion with respect to whether these were truly bioproducts.

The participants were divided among themselves with respect to the issue of the place of purchase. Some respondents buy in traditional stores and retail chains, the others buy in specialized stores (e.g. organic food stores), whereas the third group of the respondents buy products online. Shopping on the Internet is important for them because it saves their time. The participants were also divided when the promotion issue was concerned. The respondents who buy in traditional stores mainly and for the most part believe in their traditional WOM communications and promotion at the point of sale. They use the Internet so as to obtain information about products. The respondents who buy online use the Internet more for the purpose of communication. They are more active in digital WOM communications. They engage themselves on the Internet, write, comment and share the content about products. The research into the participants of the first focus group (those saying they buy bioproducts) gives the basis for marketing decisions, such as:

- developing sustainability marketing strategies
- creating, delivering and communicating sustainability-oriented value
- the presentation of the key benefits of bioproducts, such as their impact on human health and the

environment

- the pricing that reflects demand and consumers’ perceptions
- delivering sustainability-oriented value through traditional and digital marketing channels
- communicating value through integrated marketing communications.

Most respondents in the second focus group listed the price of bioproducts as the most important reason why they did not buy these products. Some are not even informed about bioproducts. If the price of the product were lower, the respondents in the second group would buy these products. They believe that the quality of products does not correspond to a higher price. If they decided to buy bioproducts, they would first buy organic food. The place of purchase is not as important to them as the price of the product. Also, in the second focus group the majority of the respondents use the Internet for the purpose of obtaining information. The respondents describe the consumers of bioproducts as the people obsessed with a healthy lifestyle. The research into the participants of the second focus group provides us with the basis for marketing decisions, such as:

- developing sustainability marketing strategies
- the pricing that is in line with the purchasing power of a potential market
- integrated marketing communications – informing, persuading and reminding non-consumers about, into and of, respectively, sustainability-oriented products and services.

Based on the research into the focus groups, a conclusion was drawn that an integrated impact on consumers, actors and the general public is needed in order to create a sustainability-oriented mindset. Another conclusion is that the sustainability marketing of many actors may affect a sustainability-oriented mindset. The development and implementation of

sustainability marketing involves a number of actors. Organizations have to communicate with various stakeholders and with the general public, too. “The customer is the king”. The behavior of customers and consumers is the most important for the bioeconomy, sustainable economy and sustainability. Sustainability marketing can influence consumer behavior. Also, sustainability marketing can have an influence on the public. Based on the interviews in both focus groups, it can be concluded that the information the public obtains on bioproducts is what is needed. Developing and implementing sustainability marketing involves a number of actors. Organizations must communicate with various stakeholders and with the general public.

It is proposed that a marketing platform that would bring together all of the relevant stakeholders in the area of sustainability marketing should be set up. Participants in such a marketing platform would be:

- Global, international and regional organizations, bio-industry associations (such as the UN, UNIDO, OECD, EU, EuropaBio, European Association of Bioindustries, etc.);
- Marketing organizations and associations – such as Marketing Science Institute (MSI), European Marketing Academy (EMAC), American Marketing Association (AMA), etc.;
- Universities and faculties.
- Networks of researchers, such as ResearchGate, etc.
- Governments/Countries.
- Industries and companies.
- Citizens.

One of the questions is who would take the role of the initiator and founder of the marketing platform. Schools and faculties are responsible for knowledge transfer. Citizens in the role of buyers and consumers (with their choices – decisions on buying and consuming products) directly affect a profit, i.e. the survival of companies, simultaneously also affecting the survival of people, and the Planet. Consumer behaviour directly affects the profit of companies, people and the Planet (“3Ps”), i.e. sustainable development and sustainability. Some buyers are aware of their roles and power, whereas others are not. Companies, global, international, regional and local institutions can influence citizens’ awareness. Companies and institutions can wage campaigns in order to inform the public about the impact of people’s behaviour on the survival of people, the Planet and companies (profits).

Sustainability is affected by companies with value chains and supply chains. Before campaigns and integrated marketing communications, companies must first of all have value chains and supply chains. Industrial sectors and companies are responsible for using a raw material and/or the key components along the value chain and the supply chain from natural resources and biological processes. Consumers with their choices – decisions on product purchases – can affect companies’ value chains and supply chains.

Institutions can also have an influence on companies. For companies, this is a challenge and an opportunity, not a threat. Based on product positioning and differentiation strategies, as well as through integrated marketing communications, companies inform consumers and the general public about their bioproducts and business.

5. Limitations and future research

This study explores the opinions of the consumers and non-consumers of bioproducts so as to determine their perceptions of bioproducts and the sustainability marketing of organizations. By better understanding how consumers perceive bioproducts and sustainability marketing, the field of sustainability marketing may its way towards an improvement. The practical implications of this study call for the sustainability marketing of many actors.

Although the findings give insights into the links between sustainability marketing and the bioeconomy, there are several limitations. First, as a study of the consumers and non-consumers of bioproducts, the findings are specific to these actors. However, consumers are the key actors for organizations, and their behaviour can be used as the key to sustainability marketing. Second, as is the case with many qualitative research studies due to a small sample size, this study cannot be generalized to all consumers. Third, the study was conducted in one country. Future studies should include more different actors and an international context. More studies are needed to pin down the link between sustainability marketing and the bioeconomy.

6. Conclusions

Researching consumers provides the bases for the improvement and introduction of products and services, pricing, designing and the management of marketing channels, the management of integrated marketing communications and the development of other marketing activities. Marketing deals with the identification and satisfaction of human and social needs and wants. Companies look for the trends that recommend new marketing opportunities. Sustainability marketing is both an imperative and an opportunity. This paper presents the role of sustainability marketing in the development of the bioeconomy, sustainable development and sustainability.

Both knowledge sustainability marketing and bioeconomy development have the same aims, such as sustainable development and sustainability. Sustainability marketing is the path towards the bioeconomy, sustainable development and sustainability.

Sustainability marketing is the science and art of satisfying the needs and wants of sustainability-oriented customers and creating sustainability-oriented markets and values (marketing mixes). Today, at the time of digitalization, when many actors use

digital devices, it is incomparably faster and easier to inform actors about biologization, sustainable development and sustainability.

The sustainability marketing platform is considered as urgent, taking into account the different actors that might shape a sustainability-oriented behaviour and mindset. The recommendation stipulated in this paper is that a marketing platform that would bring together all of the relevant actors who are responsible and/or have an influence on sustainability should be established (“3Ps”). At the time of digitalization, the marketing platform would be made visible on the Internet via the website and social media. Encouraging the engagement of Internet users through social media will contribute to WOM communication. Through word-of-mouth marketing, schools, faculties, companies and institutions can influence actors’ communication. Sustainability can be contributed to by engaging influencers (bloggers, prominent individuals in the field of sustainability, etc.), brand advocates, the representatives of companies, schools, faculties and other organizations and institutions on the Internet. Internet users can create, comment and share the content about sustainability.

The role of the platform would be to inform all of the actors about and persuade them with respect to the necessity of applying sustainability marketing. On the website of the sustainability marketing platform, actors’ activities would be displayed. Digitalization is in the function of biologization and sustainability. Digital marketing is in the function of sustainability marketing.

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