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THEORETICAL ASPECTS OF CSR ON THE CONTEXT OF BIOECONOMY

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History connected with the evolution of the concept of Corporate Social Responsibility is long, in contrast with history connected with development of the concept of bioeconomy, which is still relatively new. The aim of this paper is to systematically review both concepts in context of one another along with ways of thinking that contributed to the understanding of these concepts that we have now. The applied method is literature review by which it will be possible to choose the most interesting as well as important perspectives that shaped both concepts. This paper can be beneficial to those who search for relevance of CSR with focus on environmental sustainability, how can it address environmental issues of nowadays, that can be used for implications in practice, and how the views on CSR as well as bioeconomy developed over time.

Keywords: corporate social responsibility, bioeconomy, sustainability, literature review, circular economy

History of the corporate social responsibility concept

The concept of corporate social responsibility as it is known nowadays firstly appeared in the paper by William J. Bowen in his publication "Social Responsibilities of the Businessman" in the 1953. Bowen saw how much power big corporations had and he saw the great possible impact on society (Umare, 1953). In early days of modern approach of the concept of social responsibility, Eells (1959) saw the danger of companies failing to protect the environment and keeping it at least in the condition that it was in, on the one hand, on the other hand he knew that being socially responsible can be too difficult for some businesses. Davis (1967) was not that emphatetic towards companies, when he stated his opinion that in the long-run all companies and organisations have to accept their responsibility to the whole society if they want to maintain their position. Bowman and Haire (1975) consider corporate social responsibility activities being in conflict with interests of investor and resources that are used for these activities coming out of the pocket of equity holders to be myths. Fitch (1976) defined corporate social responsibility as the serious attempt to solve social problems caused totally or partly by companies and corporations. According to Engel (1979), the topic of corporate social responsibility needs to be discussed in the background of general political theory, since issues related to corporate social responsibility are heavily dependent on political processes. In 1980, there were debates and a lot of criticism of the business system, because of the power and privilege associated with large corporations. That was also the time, when some people started to question the ability of this kind of system to cope with problems that may arise in the future (Jones, 1980). In 1986, associate professor of political science Jarol B. Manheim and Cornelius B. Pratt, APR, assistant professor of communication studies explained poor communication of social-responsibility activities of U.S. corporations as the reason why they had benefited less from some of their social-responsibility programs than they might have had (Manheim and Pratt, 1986). Communication of activities related to corporate social responsibility can be, according to Pavlik et al. (2010), defined as the ability to present and give ideas of company appropriately by reporting to customers to show values of the company. According to Lindgreen and Swaeen (2010), the development of the CSR concept was affected by the whole variety of theories, namely agency theory, institutional theory, resource-based view of the firm, stakeholder theory, stewardship theory, and the theory of the firm which caused CSR to be conceptualized differently by different authors. What is interesting, the concept of CSR was known and thought in America for longer time than in Europe, where it was considered to be a new concept later on (Matten and Moon, 2004).

Sustainability

The concepts of corporate social responsibility and corporate sustainability are closely related according to Pirnea (2011), Ashrafi et al. (2018), Stahl et al. (2020), the main difference is that CSR is a broader term where corporate sustainability is included. That is why we will also talk about sustainability. According to Geissdoerfer (2017) there are approximately 300 definitions of sustainability. If we would want to wrap them up in one simple definition, it is the situation in which activities of people are conducted in a way that conserves functions of ecosystems of our planet. Economic development plays complementary role in climate change and sustainability even though according to Destek and Sarkodie (2019), climate change has become a global phenomenon because of being a threat to achieving sustainable development. According to Ahmed et al. (2020) the relationship between the amount of natural resources and environmental degradation has important environmental implications. Havranek et al. (2016) studied how natural resources richness affects long-term economic growth and wanted to know why more than a half of results of studies found a negative effect or no effect and only 20% found positive effect and found four aspects that are effective in explaining differences in results of studies: controlling institutional quality, controlling the level of investment activity, distinguishing between different types of natural resources, and differentiating between resource dependence and abundance.

History of bioeconomy concept

Bioeconomy is a newer concept than CSR, that is also why this paper will contain more of literature review of this concept. The very beginning of the concept of bioeconomy started probably in the 1980s with a series of policy slogans of so-called Biosociety, developing into knowledge-based economy in the 1990s, transitioning into Knowledge-based Bio-Economy in 2000s (Levidow, 2008). One of the first years talking about bioeconomy in the sense it is understood now was 2001, when Juma and Konde (2001) discussed some of features of the emergence of both industrial and environmental biotechnology considering it to be a growing segment of the new bioeconomy.

Duchesne and Wetzel (2003) came with ideas that bioeconomy revolves around even now, they predicted bioeconomy will decrease environmental impact of economic growth by usage of waste and development of goods that are biodegradable. Authors started to connect the concept of bioeconomy with responsibility as well as agricultural sustainability (Zimdahl, 2002; Graff and Newcomb, 2003; Wood and Layzell, 2003). In 2007 as Carlson (2007) mentioned, biological technologies already made 1 % of GDP of United States with revenues growing by 20 % annually. According to Chapotin and Wolt (2007), the U.S. were slowly changing to a bioeconomy to replace fossil carbon inputs in the linear model and it is the best way to sustainable development (Jordan et al., 2007). Li et al. (2006) also considered bioeconomy to be the opportunity rather than a threat in China. On the other side, Smolker (2008) argues that economies cannot simply replace fossil fuel energy with plant biomass energy and the right way is to dramatically restructure our lifestyles and relocate production and consumption of food and biomass. While some authors connected bioeconomy with policies of countries rather than with companies (Sheppard et al., 2011; Oborne, 2010), there are authors that approached bioeconomy from micro-economic point of view. Slightly different understanding of bioeconomy, that also shaped the concept of bioeconomy as we see it now is that it is an attempt for applying methods of environmental economics to empirical biology, that elaborates efficiency of usage of biological system without destroying conditions for its regeneration (Mateescu et al., 2011). In 2013, two topics were already emphasized: participatory governance engaging general public and stakeholders in open dialogue and commitment by government and industry to innovation that leads to sustainable development of bioeconomy (McCormick and Kautto, 2013). According to study in 2014, it was found out, based on the review of 87 scientific journals, that the relationship between bioeconomy and sustainability differs, therefore there was identified a variety of different visions on this relationship, starting with the assumption that sustainability is an inherent feature of bioeconomy, ending with assumption of negative impacts of bioeconomy on sustainability (Pfau et al., 2014). The answer if we would ask why there are so many different opinions on bioeconomy could be connected with the study from 2016, in which three visions of bioeconomy are identified: the bio-technology vision, which focuses on bio-technological research and application of bio-technology in economic sectors, the bio-resource vision, that focuses on processing and upgrading biological raw materials and the bio-ecology vision that emphasises sustainability and optimization of energy use (Bugge et al., 2016). Unlike the CSR concept that came from America, the EU is considered to be the trendsetter for the bioeconomy in Europe and beyond and it always has been (Patermann and Aguilar, 2018).

Recent views on bioeconomy

Recent understanding of bioeconomy stayed the same as it was in the beginning in its core: "The bioeconomy is nowadays widely proclaimed by governments and corporations around the world as a new paradigm for sustainable economy ", according to Vogelpohl (2021). Over the past decade, the concept of bioeconomy has become more visible and important in political processes and practices all over the world. Almost 60 countries of the world linked their strategies to bioeconomy. According to the Global Bioeconomy Summit (2020), there is currently no single general definition for the concept of bioeconomy. The bioeconomy in itself is not static, it is still developing, but it could be defined as the production, use, protection or preservation of natural resources, including knowledge, science, technology and innovation to ensure sustainable solutions within all economic sectors, which enables changes to a sustainable economy. It is in this definition of bioeconomy that we can see how bioeconomy touches and relates equally to traditional bioeconomy sectors such as agriculture or forestry, as well as to manufacturing and service industries. Transition to bioeconomy from a fossil-based linear economy became urgent for countries all over the world (Lima, 2021). In 2022 there were accepted actions based on an action plan named Sustainable products as standard, with proposal of rules based on which the goods on the market of the European Union would be less damaging for environment during the whole life cycle of products. The Ministry of Environment of the Slovak Republic is one of the founders of the platform Circular Slovakia, whose aim is the support for cooperation between all fields in transition to bioeconomy (Slovak Agency of Environment, 2022).

Corporate social responsibility in the context of bioeconomy

Sustainable development is the concept that connects bioeconomy and corporate social responsibility, since it is defined by the United Nations (1987) in the Brundtland report as development that meets the needs of present without compromising the ability of generations to meet their own needs in the future. Companies recently acknowledge financial risks stemming from climate change and, thus, why it is crucial to be cautious of the impact of their activities on environment and make something to mitigate and eliminate these impacts (Kaminioti, Kottaridi and Economidou, 2022). The concept of social responsibility is still evolving, according to Keswani (2019) as it was once based only on the relationship between management and shareholders, today it also deals with the expectations of society that might include also environmental responsibility and their alignment with company values. Istudor and Suciu (2020) see the tight relation between CSR and bioeconomy, since the goal and partially also the way of achieving that goal is the same for both. CSR helps corporations to change their ways of doing business, so that they use non-polluting technologies and create new workplaces that use renewable energy sources. Androniceanu (2019) think globalization causes the pressure on the economic environment to develop new models that are revolving around the idea of sustainable development while integrating the concept of corporate social responsibility. Bioeconomy is the concept focused mostly on the usage of renewable resources with emphasis on innovation and science-based knowledge, where circularity is an important element. Sustainability in agriculture was characterized by Bochtis et al. (2020) as part of sustainability in a specific industry, which is based on a set of sustainable principles, both economic, environmental and social, which should be applied in the practices of farmers. The concept of sustainable agriculture based on circularity and bioeconomy stands on the same three pillars as the concept of corporate social responsibility – environment, economy, and society.

Circular economy

The concepts of bioeconomy and circular economy overlap and co-exist together according to D'Amato, Korhonen and Toppinen (2019). The circular economy can be defined according to Nagothu (2020) as the value of products, materials and resources maintained in the economy for as long as possible, in other words, limiting dependence on new natural resources and minimizing the generation of waste. The circular economy model should reflect the need to limit the consumption of materials and natural resources. Despite the fact that the initial costs may be relatively high, producers, manufacturers, intermediaries, traders, buyers and also customers would benefit from the integration of sectors and industries such as agriculture, forestry, or food into the circular economy through the bioeconomy – the circular bioeconomy. Circular economy is mainly focused on closing the loop of the current linear

economic processes, meanwhile advocating minimising inputs and outputs, clean technologies, and renewable resources.

Conclusion

Efforts to create a sustainable future are just beginning, as Larrson (2018) reports. Creating solutions has less to do with analysing emissions and other sources of pollution, and much more to do with business and economics, and how concepts within these fields can be creatively applied to create sustainable systems. Humanity is facing many challenges that are complex and solutions to these problems must be found as soon as possible as countries need time to implement these solutions before these problems become even bigger. Theoretical contribution of this paper is mainly providing historical and recent reviews on concept of CSR and concept of bioeconomy as well as literature review on where these two concepts overlap in theory. Findings of this paper show there are some misconceptions when it comes to understanding of these concepts and some authors view these concepts differently, therefore they also have different opinions whether they are related or not. Moreover, this paper can be used by researchers to explore the latest expectations for both bioeconomy and corporate social responsibility.

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