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CIRCULAR BUSINESS MODELS: A STAKEHOLDER THEORY PERSPECTIVE

A b s t r a c t: Circular economy business models are a specific type of sustainable business models that are mainly oriented towards the responsible use of resources. The specificity of solutions for the circular economy affects, among others, maintaining relations between enterprises and their stakeholders. The aim of this study is to discuss circular economy business models from the point of view of the stakeholder theory. The paper consists of three parts. The first focuses on the general assumptions of the stakeholder theory. The second one presents the essence of circular economy business models. The third part of the paper includes considerations on the relationships between companies operating on the basis of the circular economy business model and their stakeholders.

K e y w o r d s: business model, circular economy, stakeholder

J E L C o d e: L21, L29, M14

INTRODUCTION

The key element when it comes to the transformation leading towards circular economy (CE) are new business models for enterprises. The implementation of circular business models and their popularization may be a result of the constantly increasing pressure from stakeholders (i.e. governments, communities, consumers) [Jabbour, Seuring, Jabbour, Jugend, Fiorini, Latan, Izeppi, 2020, p. 2], and their specificity can be seen in, among others, the approach towards relations with stakeholders [Lewandowski, 2016]. Therefore, a significant contribution of stakeholders can be noticed, both in terms of motivation to design business models in accordance with the principles of circular economy, as well as when it comes to performing business activities and developing enterprises based on said models. While treating the environment as a special kind of

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stakeholder (silent stakeholder) [Jacobs, 1997; Jastrzębska, 2016], it has to be highlighted that the key goal of the CE approach is to separate economic growth from both resource utilization and the impact on the environment [Ellen MacArthur Foundation, 2015, p. 5; Brears, 2018, p. 13]. Furthermore, in a broad sense, the integration of business models with the stakeholder theory fits into the concept of stakeholder capitalism, in the case of which value is created basing on stakeholder cooperation, engagement, and responsibility. [Freeman, Liedtka, 1997; Freeman, Martin, Parmar, 2007].

The aim of this study is to discuss circular business models from the point of view of the stakeholder theory. The following research question has been formulated: What is the role and significance of relations with stakeholders in the case of circular business models? To answer said question, the literature study method has been utilized.

1. STAKEHOLDER THEORY

Freeman defined stakeholders as „any group or individual who can be affect or is affected by the achievement of the organization’s objectives” [Freeman, 1984, p. 46]. According to the stakeholder theory, the goal of a business undertaking is not only to increase the value of investment made by its owners, but also the willingness to meet the needs and expectations of various stakeholders [Freeman, Kujala, Sachs, Stutz, 2017, p. 1-2]. The stakeholder theory proposes a way of perceiving organizational responsibilities that goes far beyond direct profit maximization. In its case, a given organization is expected to properly manage a complex network of interests [Jamali, 2008, p. 217]. The ability to establish cooperation between a given organization and its stakeholders requires mutual understanding with regard to the importance of interactions and information exchange. Thanks to that, both the organization and its stakeholders can notice possibilities of realizing their own interests while at the same time pursuing mutually profitable interests [Kujala, Lehtimaki, Freeman, 2019, p. 133]. The stakeholder theory is also connected with the assumption that the mode of operation may be perceived through the prism of and forecasted basing on [Wójcik-Karpacz, 2018, p. 14]:

- nature of various stakeholders,
- norms defining good and evil adopted by such stakeholders,
- impact of such stakeholders or organization-related decisions.

Various criteria are used for stakeholder analysis. Most often, internal and external stakeholders are distinguished. The first group includes stakeholders controlling the company’s operations (e.g. shareholders) or holding a specific position in it (e.g. board members, employees). External stakeholders are all groups outside the company that are interested in its activities (e.g. custo-

mers, suppliers, competitors). Taking into account the nature of the relationship between stakeholders and the organization, one can distinguish [Buczowski, Dorożyński, Kuna-Marszałek, Serwach, Wieloch, 2016, p. 19]:

- consubstantial stakeholders, who co-create a given enterprise by utilizing their capital, work, knowledge, or competences (e.g. shareholders, employers);
- contractual stakeholders, who are strictly connected with the operation of the enterprise (e.g. clients, suppliers);
- contextual stakeholders, who want the enterprise to take care of common interest (e.g. local communities, governmental institutions).

Maintaining proper relations between a given organization and its stakeholders is vital for the integration of the three major aspects of sustainability (economic, societal, and environmental one), as well as for achieving a desirable balance between them [Uribe, Ortiz-Marcos, Uruburu, 2018, p. 2]. An organization that is devoted to sustainability should include the expectations of a vast group of stakeholders in its strategy. The ability to meet such expectations should lead to the realization of traditional goals, such as profitability, stability, and growth [Ferro-Soto, Macias-Quintana, Vazquez-Rodriguez, 2018, p. 3].

2. ESSENCE OF CIRCULAR BUSINESS MODELS

In the literature, one may come across a number of definitions and approaches to creating business models [Jabłoński, Jabłoński, 2019, p. 25]. According to the selected definitions, business model:

- „depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities” [Amit, Zott, 2001, p. 511];
- „describes the rationale of how an organization creates, delivers, and captures value” [Osterwalder, Pigneur, 2010, p. 14];
- „is a relatively isolated multi-component conceptual object describing business management by articulating logic pertaining to the creation of value for the customer and capturing such value by a given company” [Falencikowski, 2012, p. 311];
- „defines a broad competitive approach to business and articulates how a company applies processes and technologies to build and sustain effective relationships with customers” [Morris, 2013, p. 34];
- „can be defined as having three constituent elements: the value network and product/service offering that defines how the business is articulated with other businesses and internally (i.e. how value is created); the value proposition that defines how products and/or services are presented to consumers in exchange for money (i.e. how value is captured); and the

context of regulations, incentives, prices, government policy, etc. (i.e. how value is situated within the wider socio-economic framework)” [Wells, 2016, p. 37].

The business model is a “developing” concept. It reflects a holistic approach to the organization and its functioning [Sztangret, Sobociński, 2017, p. 137]. The volatility of operating conditions results in constraints faced by any business model. This makes winning models constantly evolve. Along with them, the structure of the value chain is constantly changing [Walas-Trębacz, 2011, p. 37]. It is worth noting that the current shape of an enterprise and its resources are currently being undermined. What is more, changes and megatrends being of non-business source are putting an increasing pressure on well-established business models [Jabłoński, 2013, p. 229; Majchrzak, Tomczyk, Gutowska, 2019, p. 87].

Circular economy can be defined as a type of economy, in the case of which the value of products, materials, and resources is maintained for as long as possible and the generation of waste is limited to an absolute minimum [European Commission, 2015, p. 2]. As stated Kirchherr, Reike and Hekkert [2017, p. 224]: „A circular economy describes an economic system that is based on business models which replace the ‘end-of-life’ concept with reducing, alternatively reusing, recycling and recovering materials in production/distribution and consumption processes (...)”. It has to be noted that the CE concept results in the creation of alternative and highly profitable business models, regardless of the size of an enterprise or a sector it operates in [Zuchella, Urban, 2019, p. 65]. One has to note, however that each and every sector and business model develops basing on a different logic, the understanding of which is required to maximize organization-specific benefits [Larsson, 2018, p. 28].

Nussholz [2017, p. 12] proposed a definition, according to which „A circular business model is how a company creates, captures, and delivers value with the value creation logic designed to improve resource efficiency through contributing to extending useful life of products and parts (e.g., through long-life design, repair and remanufacturing) and closing material loops”. It is designed in such a way to create and capture value, while at the same time striving to achieve the ideal, from the point of view of the assumptions of CE, state of resource use [Lahti, Wincent, Parida, 2018, p. 3]. Apart from limiting the environmental impact, circular business models focus on delivering a greater value for customers [Bocken, Strupeit, Whalen, Nussholz, 2019, p. 3]. Said value may result, for example, from the specific nature of relationships established [De Angelis, 2018, p. 65]. The framework for creating value in CE is provided by the ReSOLVE scheme, developed by the Ellen MacArthur Foundation (Table 1). The scheme includes six elements, which are types of activities that contribute to the transformation towards CE.

Table 1. ReSOLVE framework

Actions	Examples
Regenerate	Shift to renewable energy and materials Reclaim, retain, and restore health of ecosystems Return recovered biological resources to the biosphere
Share	Share assets (e.g. cars, rooms, appliances) Reuse/secondhand Prolong life through maintenance, design for durability, upgradability, etc.
Optimise	Increase performance/efficiency of product Remove waste in production and supply chain Leverage big data, automation, remote sensing and steering
Loop	Remanufacture products or components Recycle materials Digest anaerobically Extract biochemicals from organic waste
Virtualise	Dematerialise directly (e.g. books, CDs, DVDs, travel) Dematerialise indirectly (e.g. online shopping)
Exchange	Replace old with advanced non-renewable materials Apply new technologies (e.g. 3D printing) Choose new product/service (e.g. multimodal transport)

Source: [Ellen MacArthur Foundation, 2015, p. 9].

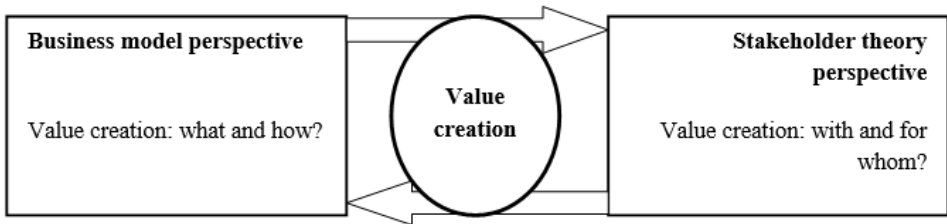
CE-specific innovative business models may help companies achieve competitive edge on the increasingly changing market being the result of the digital revolution. It is expected that their importance with regard to increasing the competitiveness of companies will rise, stimulating more and more entities to change the currently utilized business practices [Rizos, Behrens, Drabik, Rinaldi, Tuokko, 2018, p. 11]. It should, however, be pointed out that it is connected with a series of challenges, as the implementation of CE-specific solution in a long-term perspective requires comprehensive changes introduced in the most vital areas of company's operation [Kwiecień, 2018, p. 57].

3. CIRCULAR BUSINESS MODELS AND RELATIONS WITH STAKEHOLDERS

Designing, implementing, and developing circular business models requires enterprises to have a specific approach to shaping relations [Laumann, Tambo, 2018, p. 8]. It becomes necessary to create a network of connections, cooperation systems, and involve various stakeholders [Zucchella, Urban, 2019, p. 82]. A conventionally understood business model focuses on creating value for the company and customers. Usually, the created value is taken into account (what is created?), as well as actions that are strictly connected with creating such value (how is it created?). In the case of the stakeholder theory, a different question is

asked, namely: with and for whom value is being created (Figure 1). The central point of both perspectives is the value creation. Their integration allows for a precise description, analysis, and development of business models that are oriented towards utilizing the potential of numerous stakeholders to make them involved in the created value and to profit from that [Freudenreich, Ludeke-Freud, Schaltegger, 2020, p. 4].

Figure 1. Business model and stakeholder theory perspectives on value creation



Source: [Freudenreich, Ludeke-Freund, Schaltegger, 2020, p. 4].

Circular business models are classified as sustainable business models, which are characterized by a proactive management aimed at a wide range of stakeholders, creation of both monetary and non-monetary value for said stakeholders, as well as focus on a long-term perspective. In the case of circular economy models, their specific feature is focusing on the problem of using limited resources [Geissdoerfer, Morioka, de Carvalho, Evans, 2018, p. 713]. Antikainen and Valkokari [2016, p. 7] indicated that „Circular business model innovations are by nature networked: they require collaboration, communication, and coordination within complex networks of interdependent but independent actors/stakeholders”. CE-oriented solutions implemented in a specific business model may make a particular enterprise a catalyst of relations based on cooperation. As a result, value is not only created for stakeholders, but also co-created by stakeholders [Tantalo, Priem, 2016; Sulkowski, Edwards, Freeman, 2018]. In order to create a sustainable value oriented towards CE, enterprises have to maintain proper relations, among others, with:

- clients (e.g. access over ownership) [Baden, Peattie, Oke, 2020];
- suppliers (e.g. opting for incentives for suppliers and motivating them to focus on CE-compliant practices, focus on cooperation with suppliers located in the final markets) [Dubey, Gunasekaran, Childe, Papadopoulos, Helo, 2019; Gonzalez-Sanchez, Settembre-Blundo, Ferrari, Garcia-Muina, 2020];
- other organizations/institutions (e.g. industrial symbiosis that is a form of organizational cooperation, within the scope of which waste or by-products generated by one partner become a resource for the others) [Loucopoulos, Stratigaki, Zorzi, Mygiakis, 2018; Yazan, Fraccascia,

2020].

Numerous studies have indicated the exceptional importance of digital technologies in relation to the circular business models [e.g. Bressanelli, Adrodegari, Perona, Saccani, 2018; Ucar, Le Dain, Joly, 2020; Ranta, Aarikka-Stenroos, Vaisanen, 2021], many of which are data-driven. Big data analysis, serving as a tool facilitating informed decision-making processes, can be of use when it comes to the implementation of sustainable business practices that are in line with the principles of CE. In the case of the CE paradigm, big data can be taken advantage of in order to draw conclusions pertaining to process integration and resource sharing. What is more, it can be stated that collaborative relationships with stakeholders are conducive with regard to obtaining access to relevant data and their effective analysis. Therefore, stakeholder-oriented relationship management is a key factor while using big data analysis in circular business models. Mutual support and coordination driven by the stakeholder perspective combined with holistic information processing and sharing across the entire supply chain network are vital for achieving economic, environmental, and social benefits [Gupta, Chen, Hazen, Kaur, Santibanez Gonzalez, 2019]. Jabbour, Jabbour, Sarkis and Filho [2019] also emphasize the key role of stakeholders in the effective implementation of big data analysis within the CE-oriented business models. They claim that unlocking the potential of CE depends on innovative, complex, as well as dynamic data collection and analysis processes. Additionally, while taking into account the exceptional importance of a wide range of stakeholders for contemporary organizations, big data may facilitate the analysis of opinions of various stakeholder groups, thus improving the consensus-reaching process [Modgil, Gupta, Sivarajah, Bhushan, 2021, p. 2].

The specificity of circular business models results in value being created thanks to the participation of numerous stakeholders, which may in turn directly translate into unconventional partnerships within a given value chain. An interesting example of that which can be provided is the cooperation established between a carpet producer, Interface, the Zoological Society of London charity, and Aquafil fishing net supplier. Carpets are made of nylon fishing nets that were previously thrown into the sea. Nets are collected by local fishery communities in the Philippines. The partners' goal was to redesign the supply chain to generate positive outcomes for the community and the environment. A close cooperation has resulted in a solution that protects marine ecosystems and provides both financial and environmental benefits to some of the world's poorest communities [Bocken, Schuit, Kraaijenhagen, 2018, p. 82; https://www.interface.com/EU/en-GB/about/index/beautiful-thinking-net-works-en_GB, 28.09.2020].

It can, therefore, be stated that circular business models are a type of business models that combines the traditional approach with the one including the stakeholder theory. By analyzing circular business models in the context of the

stakeholder theory, one may refer to the concept of creating shared value [Porter, Kramer, 2011]. According to Porter and Kramer [2011, p. 66]: „The concept of shared value can be defined as policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates”. On one hand, CE-related principles are reflected in individual elements of a business model and facilitate the creation of a competitive potential of a company, which in turn results in the possibility of gaining a competitive advantage [Prieto-Sandoval, Jaca, Santos, Baumgartner, Ormazabal, 2019]. On the other, however, the approach represented by circular business model integrates societal, environmental, and economic benefits [Frishammar, Parida, 2019]. Such a holistic approach to value creation that takes into account stakeholders is a vital aspect of business that can be described as a sustainable one [Short, Rana, Bocken, Evans, p. 176-177]. It makes it possible to create solutions ensuring that enterprise-stakeholder relations are based on the win-win principle.

SUMMARY

According to the stakeholder theory, enterprises should take into account the expectations of a wide group of stakeholders. The changes envisaged by the concept of the CE translate into the emergence of new business concepts, including those related to relations with stakeholders. Said relationships can be considered to be key elements of the CE-oriented business model, as they are strongly related to the value offered by the enterprise. Shaping relationships with stakeholders is exceptionally important, both when it comes to the strategic perspective and to the operational level. Circular business models offer new opportunities to engage stakeholders and establish both unconventional and innovative cooperation opportunities and partnerships. It is important to jointly consider three dimensions of value creation: economic, social and environmental one. As a result, value is created thanks to and for stakeholders.

This article is theoretical in nature and focuses on the issue of relations with stakeholders as a part of the CE-oriented business models, which are considered in general terms. It is associated with certain limitations. Circular business models are an internally diversified group. Some sources mention, among others, recycling-based models [e.g. Levanen, Lyytinen, Gatica, 2018], the ones focused on extending the longevity of products [e.g. Ertz, Leblanc-Proulx, Sarigollu, Morin, 2019], as well as the ones oriented towards such phenomena as digitalization [e.g. Antikainen, Uusitalo, Kivikyto-Reponen, 2018], servitization (product-service systems) [e.g. Pieroni, McAloone, Pigosso, 2019], and the sharing economy [e.g. Schwanholz, Leipold, 2020]. It seems reasonable to undertake further examinations aiming at the explanation of the nature of relations with sta-

keholders in the case of specific types of circular business models and industries. Further pieces of research should also indicate ways of ensuring stakeholder engagement and listing activities aimed at involving stakeholders in the value creation process.

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CYRKULARNE MODELE BIZNESU Z PERSPEKTYWY TEORII INTERESARIUSZY

Streszczenie: Modele biznesu gospodarki obiegu zamkniętego stanowią specyficzną odmianę modeli zrównoważonego biznesu, zorientowaną na odpowiedzialne korzystanie z zasobów. Specyfika rozwiązań na rzecz gospodarki obiegu zamkniętego wpływa m.in. na kształtowanie relacji przedsiębiorstw z ich interesariuszami. Celem niniejszego opracowania jest scharakteryzowanie modeli biznesu gospodarki obiegu zamkniętego z perspektywy teorii interesariuszy. Artykuł składa się z trzech części. Pierwsza dotyczy ogólnych założeń teorii interesariuszy. W drugiej przedstawiono istotę modeli biznesu gospodarki obiegu zamkniętego. Trzecia część obejmuje rozważania dotyczące relacji przedsiębiorstw działających w oparciu o model biznesu gospodarki obiegu zamkniętego z interesariuszami.

Słowa kluczowe: model biznesu, gospodarka obiegu zamkniętego, interesariusze