
THE CIRCULAR ECONOMY HANDBOOK, REALIZING THE CIRCULAR ADVANTAGE, BY PETER LACY, JESSICA LONG, WESLEY SPINDLER, A BOOK REVIEW

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ABSTRACT

The paper prepared in the form of a book review is a review of the book written by the authors Peter Lacy, Jessica Long and Wesley Spindler. The book is entitled “The Circular Economy Handbook, Realizing the Circular Advantage”. The book was published by Palgrave Macmillan in 2020. Apart from their academic background, the authors of the book are world-acknowledged experts experienced in leading the world’s largest circular economy and sustainability strategy programs and studies, advising the senior leaders of the Fortune 500 companies and public organizations towards zero-waste policies and the circular economy. The book was written as a support to the effort made by the World Economic Forum, the Forum of Young Global Leaders, the Platform for Accelerating the Circular Economy (PACE) in the development of the circular economy and the forewords in the book were written by PACE’s C.E.O. and other program co-founders and the world-known thought leaders in those specialized fields.

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Introduction

Peter Lacy, Jessica Long and Wesley Spindler authored the book entitled “The Circular Economy Handbook, Realizing the Circular Advantage”. The book is the continuation of its own kind of the authors’ research, which began with the book entitled “Waste to

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Wealth”, published by Palgrave Macmillan, a UK publisher, in 2015. The book was published by Palgrave Macmillan in 2020 and addresses the students’ and companies’ need for learning valuable lessons; it was intended to be a practical guide for the necessary business models and system shifting within known industries. This book is the subject matter of the research regarding this scientific article (Lacy et al., 2020). The authors of the presented book also wrote other books published within the framework of the topics of the circular economy, waste management, growth and sustainability issues, written on the basis of their academic and expert analyses and rich experience within the specialized of waste management, sustainability and ecology.

Within the part of book review entitled *The Methodology and Goal of the Paper*, the scientific goals of this review and the methodology used will be acknowledged.

Within the part of the book review entitled *The Paper Results with Discussion*, the presented book content will be analyzed within the existing structure of the book. The book is structured into three separate and relatively independent wholes, alongside the introduction, the two appendixes, and the index. The authors’ endeavors to collect and present in the right manner the anamnesis of the linear economy and the symptoms, and define the accurate descriptions of the problem(s), as well as to suggest a pivot – namely solutions and an adequate therapy within the framework and in the form of the circular economy – were supported by numerous individuals and institutions, first of all through the five forewords authored by the most significant names of the foundations and platforms for the development of the circular economy.

At the end of the book review, the conclusions are presented based on the material presented in the book in comparison with the other available literature – books, scientific papers, the legislation and studies.

The Methodology and Goal of the Paper

The book review is aimed at presenting the scope, structure and basic values of and the lessons learnt from the book entitled “The Circular Economy Handbook, Realizing the Circular Advantage”, published by Palgrave Macmillan at the beginning of 2020. The presented facts and information revealed in the book review were produced based on the content analysis, perceiving and comparing the basic values of the book with the current scientific and professional literature.

Bearing in mind the kind of the scientific paper, the research will base the scientific research methods characteristic of a book presentation (content analysis, induction, deduction, case study analysis, comparison, the historical method).

The Paper Results with Discussion

The book has 350 text pages written in the Royal format with 28 schemes and figures and 31 tables. The concept of the book is such that, through the 28 chapters organized into three separate wholes, it defines the current state of environmental, social and business issues (the

first whole), the optimal projected state (the second whole) and offers practical solutions to how achieve the optimal, projected state independently of the status of companies (the third whole) within the framework of the circular economy model. The book highlights the economic character of the problems that used to be treated primarily (sometimes even exclusively, too) as environmental problems. Through the presentation of the specificities of different industries, the book presents the most frequent obstacles to a transformation from the 'linear' business doing model to the 'circular'. The authors of the book say that the aim they followed was to present to readers the points of view that would help them perceive how they would "scale the circular economy within their organizations and drive competitive advantage throughout their value chains." (Lacy et al., 2020).

The introductory, and the first chapter at the same time entitled "The Path to Transformation Is Circular" presents environment-related issues (the climate change, a climate crisis, a devastating loss of biodiversity and the habitat, resource scarcity etc.), addressing them as social and business issues, and indicate the general point that solutions to problems lie in the understanding of the broader issues of sustainability and resource usage. Like the other reference authors, the authors of the book emphasize the pragmatic side of the circular economy. Tonneli and Cristoni find that the circular economy is the pragmatic approach that can help society change the current path of natural exploitation we witness to and fear. (Tonneli, Cristoni, 2019) The authors Janić and Jovčić have also recently expressed a similar attitude in their research, establishing a fact that, in the last fifteen years, the weight of discussion about the consequences of global climate changes has been changing and that the standpoint is not always connected with ecology, but rather with the economy. (Janić, Jovčić, 2016) Stahel also considers that the circular economy rebuilds all kinds of capital (financial, manufactured, human, social or natural) and seeks options for all organizations. (Stahel, 2019)

The authors emphasize the fact that only one part of the global problem will be solved if carbon emissions are reduced through "energy efficiency, zero-carbon production, and renewable energy" (Lacy et al. 2020), whereas to solve the overall problem, both production and consumption of energy must be perceived. The above-mentioned environmental, social and business issues, as well as many others (e-waste, food waste, plastics...) must be approached instantly, which many governments have recognized and accordingly have created proactive (the authors used the term 'aggressive') targets/measures, like those targeted by the European Union (e.g. banning cutlery and straws by 2021). The role of regulation bodies is recognized as important in various arias like the role of the state regulatory bodies in the regulation of the food in America. (Ilić, et al, 2019) In their paper, Vilke et al. also recognize the EU strong response to the environmental challenges like climate change, food safety, and sustainable growth. (Vilke et al., 2019) Different government (and not only government) policies and strategies will also exert numerous influences on the economy and society. Adkins et al. establish a fact of the general growth of the capital and wealth of companies and pose questions about assets and a growing inequality as a result of economic and political strategies. (Adkins et al., 2019)

Changes in consumer behavior and habits are also noticed; as a good example, the authors mention the asset-sharing services practiced by millennials, and other ecologically conscious habits. By monitoring changes in government policies, on the one hand, and changes in consumer behavior as well, companies increase the use of recycled materials, zero waste and reusable and recyclable packaging.

The authors highlight the need for the general understanding of the principle(s) of the circular economy independently of whether actors are consumers, i.e. citizens, the government or the economy. From the point of view of the consumer, the general involvement of citizens is suggested in all sustainability aspects. A similar piece of advice is also given by Petljak et al. in their research carried out in 2019, within which they established a fact that, while some individual users pay attention to the symbols of a product packaging and opt for an ecologically sustainable packaging because they are motivated by care for environment and personal health, a certain number of them considers them to be unimportant. (Petljak et al., 2019) In their research study, Tešić et al. highlight their significance when medications are in question – the medication instruction that would contain all relevant information for consumers and help them make a decision on buying the medication. (Tešić et al., 2010)

The introductory chapter further clarifies the difference from the traditional ‘linear’ path of doing business to the new principles of circularity, referring to the circular economy as ‘a new economic system’, as well as ‘a business strategy’. The circular economy as presented in the first, introductory chapter is the one that eliminates the concept of waste, changing the way the economy produces and the economy and society consume, which has the product of making a healthier “ecosystem that circulates value throughout the economy and society.” (Lacy et al., 2020).

The circular economy is felt as a response to the growing needs of humankind, respecting the limitedness of resources at the same time, so it is based on sustainable development. The circular economy is based as a concept which would enable the renewal of the ecosystem, which requires a large number of innovations and changes in the habits of the economy and society. An important characteristic of the circular economy is its orientation towards the zero-waste concept. The current attitudes of the authors as Franco-García et al. (Franco-García et al., 2019) towards zero waste consider this concept to be an alternative solution to waste management problems.

In the first thematic whole entitled “Where are We Now? – Setting the Foundation”, the elaboration of the notionally introduced discipline in the introductory (first) chapter is presented through the two chapters of The Circular Business Models and Disruptive Technologies. The authors present five circular business models: Circular Inputs, Sharing Platform, Product as a Service, Product Use Extension and Resource Recovery, saying that these circular models assist business in its approach to waste, like “resources, capacity, lifecycles, and embedded value”. (Lacy, et al, 2020) In this part of the book, the authors find the following five enablers important for speeding up the adoption of the principles of the circular economy, namely “consumer engagement,

design, reverse logistics, disruptive technologies and ecosystems.” (Lacy et al., 2020) The authors underline the importance of disruptive technologies in the strike of the circular economy (digital, physical, and biological technologies) and their involvement in enabling circular business models by increasing efficiency, innovation, data sharing, and a decrease in relying on resource-intensive materials.

In the second thematic whole entitled “Where Do We Need to Be? – Scaling Industry Impact”, the authors introduce 12 new chapters, of which 10 chapters present the profiles of the major industries in terms of waste pools, obstacles, potential opportunities etc. as the means of providing and learning practices that can be helpful in overcoming problems in specific economic sectors. The fourth chapter of the book speaks about the reason why the circular economy is a story about ten Industries. The industries identified as major are as follows: Metals and Mining; Oil and Gas; ICT; Machinery and Industrial equipment; Electricity; Chemical; and FMCG; Household; Fashion Industry; and Personal Mobility (the industry profile). In this part, the authors highlight the fact that circular opportunities address the four types of linear waste: wasted resources, a wasted capacity, wasted lifecycles and wasted embedded values, suggesting that the linear way is not the only way to create value. Apart from presenting the ten major industries, this thematic whole also shows in one chapter (Fifteenth) how e-commerce meets the circular economy, considering the manners in which companies can reduce waste across distribution channels, offering products/services with greater revenues etc. This chapter resolves the dilemma whether “e-commerce channels or brick-and-mortar stores have more substantial environmental footprints.” (Lacy et al., 2020)

In the third thematic whole entitled “How Do We Get There? – Making the Pivot”, the authors introduce 8 new chapters, which are indicative of the necessity for synchronizing the two processes, one of which is *the transformation and growth of the core business*, whereas the other is *scaling new initiatives of the circular economy*, which requires the defining and valorization of the main point essential for the advancement of the circular maturity within the four categories holistically: Operations; Products and Services, Culture and Organization; and Ecosystem.

Within the scope of the *Operations* as one of the four main points, the authors suggest that ‘the value lost’ should be examined through operations and with respect to energy, emissions, water, and waste. Within the scope of the *Products and Services*, change in the product/service design, the lifecycle, the optimization of their usage, close product loops, and ultimately the elimination of waste are addressed. Within the scope of the *Culture and Organization*, the authors suggest that companies should (and must) introduce the circular economy principles into the fundamentals of the organization by making changes in their respective policies, practices and procedures. Within the *Ecosystem* as the forth main point, the authors suggest that a strategic partnership should be established both in the public sector and in the private sector in order to create such an environment that will enable them to achieve a ‘collective transformation.’ At the same time, this also the final, 28th chapter of the book.

The book poses questions and gives integral answers to them: Is it possible to bring global production and consumption systems into compliance with sustainability? Is it possible to create a healthier planet with business growth? Is innovating possible without linearity with the circular economy with the achievement of a competitive advantage? And so on.

In a way similar to Lacy, Long and Spindler, other authors also contemplate the nature of enterprises and their complexity, the bases for the achievement of a competitive advantage, innovating, etc. Ilić finds that an enterprise's business doing is conditioned by the environment, and that the environment consists of all the elements (individuals, organizations and institutions) and factors (economic, political, legal, technological, sociocultural, ecological and other) that exert an influence (either real or potential) on the results of the business doing of the enterprise (Ilić, 2018). In their research study conducted in 2019, Rajnović et al. emphasize the complexity of the company and stress the obligation of a sustainable business of companies. (Rajnović et al., 2019).

Di Mariaabe et al. (Di Mariaabe et al., 2020) also show the sustainability of the waste management system imposed by the EU legislation, emphasizing the primacy of the integrated sustainability indicator (ISI) based on the environmental, social and economic lifecycle approach in analyses.

In the literature list, the authors present an imposing number of 644 bibliographical entries, annotations and quotations, covering the content of the three thematic wholes and indicating the fact that the text of the book is thought-provoking and significant first of all thanks to the fact that they used scientific apparatuses, regulation and business cases and trends (in the research study, more than 1500 circular case studies were analyzed through the Circular Program Award Initiative organized by the World Economic Forum). The book refers us to the practical steps that must be made so as to enable a linear organization to become a holistic circular organization. There are authors who also considered what was needed for an organization to change its course of action. Gedminaitė-Raudonė et al. remind us of the fact that the circular approach differs from the traditional linear model of production, finding that the aim pursued by businesses must change from that implying generating profits of products and services sold to that implying generating profits from the flow of materials and products over time. (Gedminaitė-Raudonė et al. 2019)

Although the authors are more prone to presenting the benefits of shifting from the linear to the circular economy, they also make a mention of the existence of certain risks accompanying this process in organizations. In a way similar to them, Jovičić et al. find that, when making a proposal for a new concept, such as shifting to the circular economy, a series of economic and other benefits are expected in a longer time period. A possible occurrence of short-term losses, however, should not be neglected. (Jovičić et al., 2019)

Conclusions

The book entitled “The Circular Economy Handbook, Realizing the Circular Advantage” presented in this scientific book review was written in the academic style, and its value reflects in the demonstrated richness of the authors’ knowledge and their familiarity with several scientific fields and areas (social-humanistic sciences, interdisciplinary sciences, medical sciences). The authors Peter Lacy, Jessica Long and Wesley Spindler have demonstrated the ability to present the problems of climate change, waste management, uncontrolled growth within different scientific fields and practical current problems by drawing the so-called ‘take, make, waste’ mindset that exists in society and in the economy, by which the general value of the text is multiplied and its dual nature – scientific and professional – is presented (i.e. its scientific and professional contribution).

The linear path is implicative of the mentioned ‘take, make, waste’ model, and the book highlights that exactly at the moment when something is wasted – resources are wasted. Treating resources in nature badly is in contradiction to the basic economic principles that speak about the scarcity of resources and finding out a way/ways to use them for alternative needs. The essence of the circular economy lies in the manner in which resources would be retained in the manufacturing/production and consumption cycles as long as possible. In that manner, the living environment is also protected by saving money, resources and workforce, simultaneously with the significant savings that companies would have since they would be using the already used materials.

“The Circular Economy Handbook” shows guidance for systemic change within the holistic approach, referring to organizational and civil change from ‘the linear to the circular’, changing business models by means of technology as well, which its practical contribution is based on and which is justified by the noun ‘handbook’ used in the title of the book.

Conflict of interests

The authors declare no conflict of interest.

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