Chapter 5 Approaches to the Circular Economy

Peter Jones

University of Gloucestershire, UK

Robin Bown

b https://orcid.org/0000-0001-7793-108X University of Gloucestershire, UK

ABSTRACT

The concept of the circular economy, which looks to reduce the demand for raw material inputs and natural resources and to recover, reuse, and recycle those inputs and resources as an integral part of the production process, is attracting increasing attention from business corporations. A transition to a more circular economy will bring major changes for consumers, in patterns of consumption and in the consumption process. At the same time, there is growing interest in the concept of the circular economy and in its implications for consumption amongst academic researchers. This chapter outlines the concept and characteristics of the circular economy, offers a review of the nature and variety of academic research literature on the circular economy, and explores some of the challenges facing researchers who look to examine its operation within the business environment. While the focus of the chapter is firmly on the circular economy, it also raises a number of issues that have wider and deeper significance for consumer consumption.

INTRODUCTION

The concept of the circular economy which looks to reduce the demand for raw material inputs and natural resources and to recover, reuse and recycle those inputs and resources as an integral part of the production process, is gaining increasing momentum in political and business thinking about the transition to a more sustainable future (Jones and Comfort 2017). The European Commission (2015), for example, argued that "the transition to a more circular economy, where the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste

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is minimised, is an essential contribution to the European Union's efforts to develop a sustainable, low carbon, resource efficient and competitive economy". The circular economy embraces all stages of the product life cycle from both the product design and the production process, through marketing and consumption to waste management, recycling and re-use. Accenture Strategy (2015), for example, suggested "transitioning to the circular economy may be the biggest revolution and opportunity for how we organize production and consumption in our global economy" and that "at its essence, the circular economy represents a new way of looking at the relationships between markets, customers and natural resources". PricewaterhouseCoopers (2017) argued "ultimately the circular economy is about rethinking everything, including business models themselves, so we can reduce consumption". In short, a transition to the circular economy will bring major changes for consumers, in patterns of consumption and in the consumption process.

While research work on incorporating pollution and waste in economics (e.g. Leontief 1970; Nakamura 1999; Duchin 1990) can be traced back over fifty years, more recently academic researchers have taken an increasing interest in the circular economy across a wide range of business sectors. Jones and Comfort (2018a), for example, explored how Europe's leading retailers have publicly addressed circular economy approaches and offered some general reflections on the application of the concept within the retail sector of the economy. Girard and Norca (2017) proposed a circular economy model to make tourism more sustainable but recognised that circular tourism requires the development of appropriate tools and indicator data, to test the efficiency of this model. Leider et al. (2017) examined the possibilities of circular economy implementation in manufacturing systems using a multi-method simulation system approach to link design and business strategy. Lebre et al. (2017, p. 662) explored the role of the mining industry and suggested, "mines can make significant progress if they apply the circular economy principles at the mine site level" (p. 662). The transition to a circular economy has major implications for the consumption process and for consumers and it seems likely to attract growing research interest within the academy. With this in mind, this chapter outlines the concept and characteristics of the circular economy, offers a review of the nature and variety of academic research literature on the circular economy and, explores some of the challenges facing researchers who look to examine its operation within the business environment.

The Concept of the Circular Economy

While Murray et al. (2015, p. 10) suggested that the term circular economy has "been linked with a range of meanings and associations by different authors" (p. 10) they argued that in its most basic form "a circular economy can be loosely defined as one which balances economic development with environmental and resource protection" (p. 10). The Ellen McArthur Foundation (2017a) which was established in 2010 with the aim of accelerating the transition to a circular economy, argued that "a circular economy is restorative and regenerative by design, and aims to keep products, components, and materials at their highest utility and value at all times" and that "the circular economy is a continuous, positive development cycle. It preserves and enhances natural capital, optimises resource yields, and minimises system risks by managing finite stocks and renewable flows" (webpage). In practice, circular economies are popularly seen to be built around a range of activities, which look to reduce the demand for raw material inputs and natural resources and to recover, recycle and re-use inputs and resources as an integral part of the production process. As such the concept of the circular economy is contrasted, by its proponents,

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