

Lectio praecursoria

Managing Circular Business Models:

Essays on Customer Value Creation, Dynamic Capabilities and Value Networks in the Circular Economy

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Mr Custos, Mrs Opponent, ladies and gentlemen. I will start with a little bit of context. You may have seen this picture from the European Commission last week, in a stunt organized by Greenpeace before the end of the COP25. Our house is literally on fire. Scientists, activists, children in the streets are alarming us about the climate emergency. Our current economy, which we can describe as linear, is producing unsustainable consequences in the form of waste, pollution and carbon emissions. In order to align our economy with planetary boundaries, limit our carbon emissions, protect biodiversity, while developing prosperity for all, today and tomorrow, we need to revisit our economic mindset and develop alternative ways to produce and consume in a more sustainable way. In the recent years, the circular economy has been highlighted as a relevant alternative to fix our environmental issues, while creating a safe operating space that is supporting local inclusive sustainable development. More than just recycling, circular economy seeks to design out waste, and create long lasting value by recirculating materials and products through specific strategies, such as reuse, repair, refurbish, and ultimately recycle.

But how do we get there? Several actions are needed at different levels. At national and European levels, new policies need to be developed. The European Commission for instance, last week, presented its new green deal, that puts circular economy at a central position to transform the European industry. In Finland, SITRA introduced its circular economy roadmap a couple of years ago, with key objectives and strategies. At city level, several capitals around Europe (Paris, Amsterdam, Brussels) are also introducing circular economy action plans. At company level, new technological solutions can and should be created, but beyond these new technologies, there is a need to transform our existing business models so that value creation mechanisms are aligned with a circular thinking.

This dissertation is positioned at the micro level, and takes the business model

construct as our main focus of research. Business model can be defined at the rationale on how companies create deliver and capture value. In recent years, scholars have tried to define what a business model means when it fits the principles of sustainability. And when value creation goes beyond simple profit making and includes societal and environmental benefits. Framed within the discourse of sustainability, circular business models aim to create a systematic answer to how companies can create deliver and capture value by closing resource loops. Theory and practices around circular business models is only emerging, and if the number of publications has exponentially increased in the recent years, there is still a need to create a better understanding on what it means to create circular business models. This is the main motivation behind this dissertation.

Transforming to a circular business model rationale create several tensions in the different mechanisms of value creation. We cannot create value in the same way we have done so far. Value proposition cannot be anymore a simple static proposition driven by the company. Customers' needs are more complex and multifaceted than before. And as circular economy includes diverse stakeholders throughout the life cycle of a product, new value propositions need to become more dynamic and user-driven. The way companies use resources also needs to be addressed. Companies have to depart from an exploitive approach to a more regenerative approach, in which resources are conserved, brought back and reused for future customers. The way we design our value chains also needs to change. We cannot rely on linear approaches, and need to see value creation in a network perspective, with multiple actors having different roles and bringing different skills. Finally, customers should not be seen as passive consumers of products. They suddenly take a more prominent role, where they are more engaged in cocreating solutions.

So what are the intended contributions of this dissertation? First, there is a need to clarify our understanding of the whole Circular Economy concept, how circular principles are translated into business model strategies. Second, we need to gain clarity in the conditions that facilitate the transformation of companies from linear to circular. Here, marketing has insights to bring in. Therefore, a marketing lens to business model transformation has been taken for this research.

The main research question of this dissertation is as follow: *What are the critical conditions enabling Circular Business Model transformation?* Each individual essay focuses on a sub research question. In essay one, we ask "how can we classify and characterize existing Circular Business Models?" In essay two, we ask "which Customer Value Creation mechanisms are enabling the implementation of Circular Business Models?" In essay three, we ask "which dynamic capabilities are enabling the implementation of Circular Business Models?" And finally, in essay four, we look at "which attributes of a value network perspective can support the development of Circular Business Models?"

In terms of theoretical framework, three theoretical constructs were used in this

dissertation. Each are closely associated with value creation mechanism in business model architecture. The first one, *Dynamic Capabilities*, refers to the firm's capacity to purposefully create, extend or modify its resource base. Second, *Customer Value Creation*, which deals with customer's perceived preference for solutions which can help them achieving their goals and purposes. Third, *Value Networks*, which can be defined as any set of roles and interactions in which people engage in both tangible and intangible exchanges to achieve economic or social good. As shown in the model developed, these three streams present strong interconnections. Business models need to be developed based on specific capabilities to create value. Value creation doesn't happen in a vacuum, but the constellation of actors surrounding it need to be more closely involved. The customer value creation at the core of the business model needs to be reshaped to make the business model viable.

In this dissertation we follow a Constructionist stance; the circular economy can be seen as a social construct, which is shaped by different social actors, practitioners, managers, and researchers. In that respect, we pursued a qualitative approach to the research. Except for the first essay, which mainly analyses existing literature, the remaining essays all use multiple case studies of companies involved in developing circular business models. Semi structured interviews, data triangulation with other sources of information, Manual coding and analysis were used to detect emerging patterns that are then organized into findings.

What are the individual findings from the essays? Several findings can be highlighted in the four essays. First, we found that there is a gap between the current understanding of circular economy and subsequent circular business model emerging theory. We bridge that gap by proposing an integrated typology describing five generic circular economy business models and their underlying dynamics. In essay two, we found that customer value creation in circular business models is a multifaceted construct that goes beyond environmental concerns. Instead, a combination of several distinctive value dimensions are necessary to create relevant convincing value propositions that meet customer needs. In essay three, we identified recurring skillsets that help shape circular business models. We described the dynamic process taking place when *cosensing*, *co seizing*, and *coreconfiguring* existing internal and external resources to develop a successful business model. Finally in Essay four, we provided a more precise characterization of circular value networks, we identified roles and skills focal actors can develop when managing circular value networks.

What is the relevance of this research? First, we provide a clarified definition of the studied phenomenon: a circular business model can be defined as "*the rationale of how a company creates, delivers, retains, optimizes, captures, and recovers superior sustainable value by regenerating, narrowing, slowing, intensifying, dematerializing, cascading and closing resource loops within its value network, thus supporting its stakeholders without undermining the functioning of the biosphere or crossing any planetary boundaries*". Second, we highlight that the selection of one or more guiding circular principles determines the type of circular business model

to pursue. Depending on the guiding principles and characteristics of the business model envisioned, we posit that the value proposition, value creation, value delivery and value capture components of the existing business model have to be simultaneously reconfigured to make the business model circular. The value proposition needs to shift from being a static proposition only aiming at meeting a single customer need, to become dynamic and multifaceted, offering multiple benefits to a larger set of stakeholders, including society and the environment. The value creation and delivery mechanisms are interdependent mechanisms leading to the provision of value through three distinct tactics: value maintenance, value optimization and value recovery. Value capture in circular business models extracts net positive social, economic and environmental value.

A systematic approach embedding three distinctive marketing mechanisms can enable firms to reconfigure their business model architecture. The circular value proposition is influenced by a redesign of the customer value creation mechanism in which user needs are translated into a constellation of *functional, symbolic, experiential, cost/sacrifice and co-creation values*. The identification and dynamic reconfiguration of new capabilities (*sustainability capabilities, entrepreneurial capabilities, systems capabilities and user-centered capabilities*) facilitate the value creation and delivery process of the circular business model. Through *cosensing, coseizing and coreconfiguring*, the business model architecture is redesigned within and beyond the firm's boundaries. Taking a system level perspective, enables the development of new value creation mechanisms, by positioning the circular business model within a value network perspective in which heterogeneous actors, tied by reciprocal interdependence, intentionally exchange symbiotic service provision supporting a common purpose. The model in this slide, and in page 64 of the dissertation, provides a holistic picture of the mechanisms at play. I believe we will have time during our conversation to expend further on each mechanism.

What's next? A dissertation defense is not the end of a journey, but rather a new beginning. This dissertation provides a first framework linking marketing mechanisms enabling circular business model transformation. Several pathways can be taken to continue building knowledge and practical insights on the topic. As the model is built from different insights taken from individual lenses, I believe it would be relevant to test this integrated framework in a set of individual case studies experiments in which all lenses and associated tools could be tested and validated from a holistic perspective. Additional research is also needed to understand the 'business experimentation for sustainability' concept; ways in which such experiments can be implemented; and how it can help accelerate sustainability transitions in business. To activate these experiments, tools and methods are needed that allow business to experiment with new business models. We also need to advance our understanding of the sustainability impacts achieved in circular business model innovation, and finally we need to build organizational capabilities for sustainable innovation and experimentation.

This dissertation modestly tried to contribute to this enormous challenge we are

currently facing. Everything needs to change so that everything remains the same.
Thank you.

Author information

The public examination of Erwan Mouazan's doctoral dissertation "Managing Circular Business Models: Essays on Customer Value Creation, Dynamic Capabilities and Value Networks in the Circular Economy" was held on Thursday 19 December at the University of Vaasa. The field of dissertation is Marketing. Email: erwan.mouazan@uva.fi