

Creating Customer Value in a Circular Economy

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Creating Customer Value in a Circular Economy

Learning from Three Companies

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Abstract

Resource related challenges are becoming increasingly severe. The shift towards a circular economy is viewed as one prominent way to overcome the challenges. A shift towards a circular economy would partly require new business models, commonly referred to as circular business models. In order to enhance the development of circular business models, there is a need to understand how companies with circular business models can create customer value. Hence, a company need to create value for their customers in order to capture economic value within the organisation. Therefore this study is looking into how existing companies, and in particular those with service oriented circular business models, are creating customer value. The term service oriented circular business model is introduced in this study and can be seen as a sub-set of circular business models; with the common characteristic of providing access or usage of products rather than ownership. The study uses the value proposition canvas as a tool, showing how the three companies, Vigga, Enso and Repack, are creating customer value by enabling their customers to: save money, save time, use high quality products, use more convenient solutions, reduce their environmental impact and by creating an “early-adaptee-feeling”.

Keywords: Customer value, Value proposition canvas, Fit, Service oriented circular business model, Circular economy

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1. Introduction

Today's global economy can be described as a linear "take, make, dispose" economy where goods are manufactured from raw materials, sold, used and then discarded as waste (EMF, 2015; Ness, 2008). Whilst the linear economy has been generating exceptional levels of economic growth, this has come at the expense of natural system degradation, structural waste, supply and price risks (EMF, 2015; EC, 2014; Park & Chertow, 2014; UNEP, 2013).

An alternative to today's linear economy is the circular economy, which has received growing attention during the last decade because of its potential environmental, financial and social benefits (Lewandowski, 2016; Webster, 2015; Yuan et al., 2006). The circular economy, as described by the Ellen MacArthur Foundation (EMF) (2015), is restorative and regenerative by design, and aims to keep products, components, and materials at their highest utility and value at all times.

Shifting towards a circular economy could eliminate existing resource-related challenges and the shift would require engagement and change from all levels of society, including business (Lewandowski, 2016; Ghisellini et. al., 2015; Planing 2015).

In order to understand how to change a business, it is necessary to understand how it operates (Osterwalder & Pigneur, 2013). One way to understand and gain an overview of how a business operates is to look at its business model. There are various views on what a business model exactly is (El Sawy & Pereira, 2013; Bouwman et al., 2008; Johnson et al., 2008), but it is commonly described as a structured management tool explaining how a company operates (Giesen et al., 2007).

Nevertheless, Osterwalder and Pigneur's (2013) business model definition and their business model canvas is recognized world wide, for being a structured way to explain a business model (Barquet et. al., 2013). Figure 1 shows an image of the business model canvas containing the suggested business model components and their definition of a business model.

“The rationale of how an organization creates, delivers and captures value”.

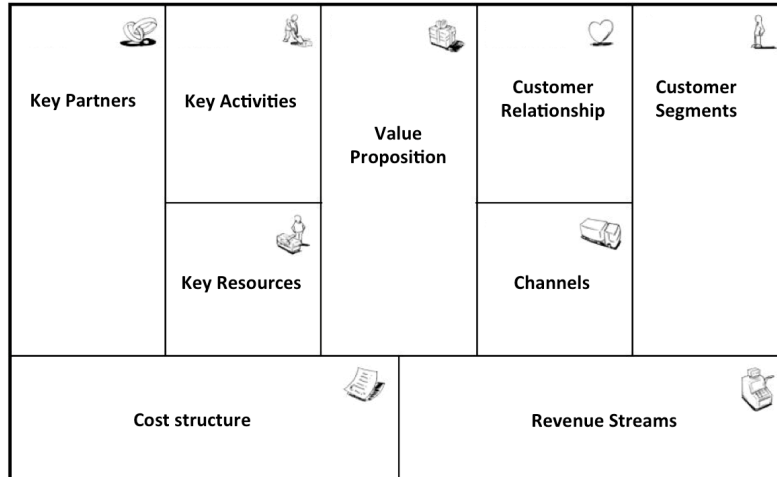


Figure 1 Business Model Canvas
Source: Osterwalder and Pigneur (2013) (Strategyzer)

A company aiming to operate in a certain way must ensure all its business model components align with the company’s objective (Osterwalder & Pigneur, 2013). Subsequently, a company aiming to operate according to the concept of a circular economy must therefore ensure its business model components are aligned accordingly. Such business models are commonly referred to as a circular business models (Lewandowski, 2016).

There are various opinions on how to define a circular business model, and whether the business model canvas is a suitable framework for the development of circular business models or not (Lewandowsky, 2016; Planing, 2015). Thus, there is no obvious one way to define a circular business model.

However, it is commonly understood that a company with a circular business model operates according to the concept of the circular economy (Lewandowsky, 2016; Linder & Williander, 2015). This study uses EMF’s interpretation of a circular economy, since it is broadly accepted (Lewandowski, 2016). Therefore this study argues that a company with a circular business model should operate according to EMF’s three principles of the circular economy. Consequently this study suggests five criteria based on the three principles, which a product providing company with a circular business model shall meet. The criteria and the principles of the circular economy will be further explained below in the theoretical background section.

1.1 Research Gap & Background of the Research

The research regarding circular business models is a young field. Existing research has for example: suggested business strategies for a circular economy (Bocken, 2016; EMF, 2015; EMF, 2013a; EMF, 2013b), developed circular business model frameworks (Lewandowsky, 2016; Planing, 2015), and suggested sub-categories of circular business models (Forum of the Future, 2016; Lacy et al., 2014). All studies above touch the customers role in a circular business model, but only a few existing studies are focusing on the customer's role in a circular business model. Some examples are Planing (2015), Linder and Williander (2015) and Maria et al. (2015), who are suggesting reasons for why customers not are accepting circular business models.

This implies there is a research gap of in-depth research exploring how customer value is created in circular business models. Hence, the study will take a different approach than existing research, by thoroughly looking at how customer value is created in existing circular business models in a more structured and detailed way. This is an important research area since a company cannot capture economic value without creating customer value. A deeper understanding of how customer value can be created in circular business models could therefore enhance the development of circular business models (Osterwalder & Pigneur's 2013).

This study will solely look into how customer value is created in a sub-category of circular business models, those with a common characteristic to provide access or usage of products rather than ownership. Such circular business models are in this study referred to as service oriented circular business models and will be further explained in the theoretical background section.

The two business model components value proposition and customer segments, play a central role when it comes to creating customer value. Not only Osterwalder and Pigneur (2013), but also other suggested business model frameworks created by Yip (2004), Hedman and Kalling (2002) and Wirtz (2010) includes the two components values proposition and customers segments and argues the relationship between the two components gives an indication on how customer value is created.

The relationship between the two components has gained much attention, and Osterwalder et al. (2015) have further developed an extension of the business model canvas, which illustrates the relationship between the two components. The extended canvas is called the value proposition canvas and illustrates how customer value is created.

According to Osterwalder and Pigneur (2013) and the value proposition canvas, customer value is created when an organisation provides a product or service, which relieves “pain” (e.g. costs/undesired situations) or create “gains” (e.g. desired benefits) for the customers. Thus, customer value is created when fit between what a company offers (value proposition) and what their customers want (customer segments) is achieved. In other words, customer value is created when there is a fit between an organisation’s gain creators/pain relievers and customer’s pains/gains, as illustrated in the value proposition canvas (figure 2). The value proposition canvas is further explained in the theoretical framework. It will set the structure of how the study presents customer value creation in three service oriented circular business models, belonging to the companies:

- Vigga
- Enso
- Repack

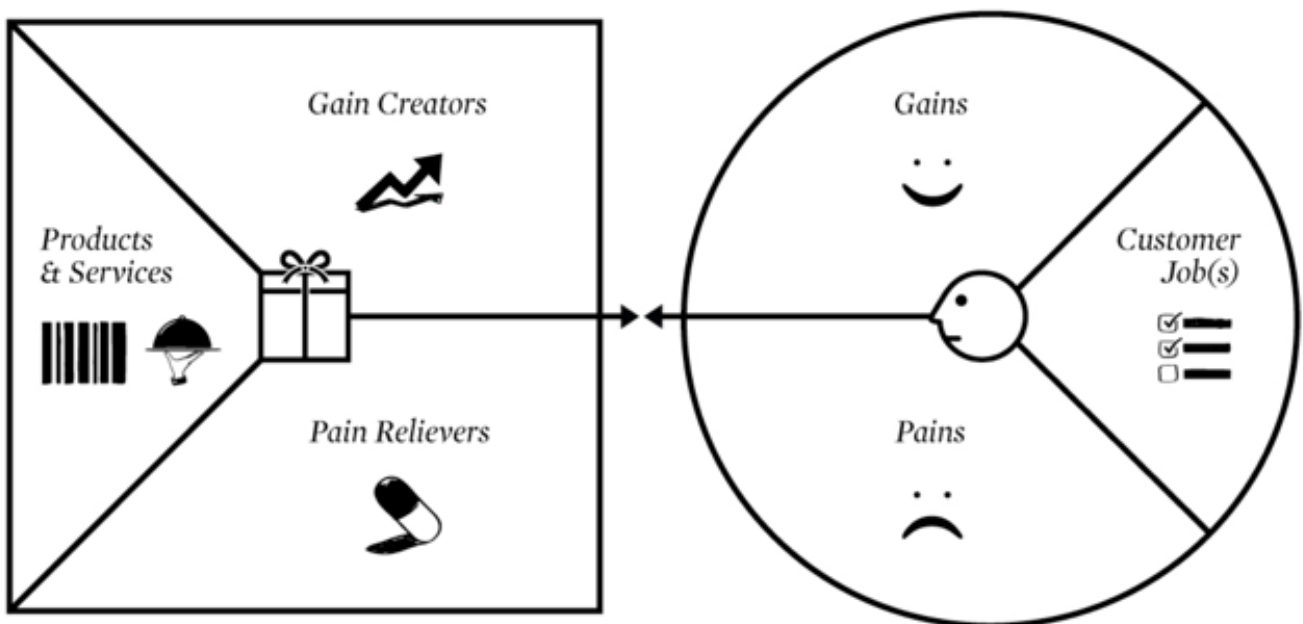


Figure 2 Value Proposition Canvas

Source: Osterwalder et al. (2015) (Strategyzer.com / Strategyzer AG)

1.2 Research Objective

Given the identified knowledge gap, the research objective of this study is to acquire a structured, in-depth understanding of how customer value can be created in service oriented circular business models.

1.3 Research Question

The research objective leads to the following research question:

What are the fits between pain relievers/gain creators and customer pains/customer gains in existing service oriented circular business models?

1.4 Scope

The study is limited to companies, which products predominantly are created out of technical materials, in other words non-renewable materials (EMF, 2015). Moreover, the study is limited to customer value creation towards the end-user of the product. Hence, intermediates are not included in the study.

2. Theoretical Background

The theoretical background will first set the frame by providing general insights on the concept circular economy and present its three principles suggested by EMF (2015). Secondly, the implication of a circular business model and its criteria will be elaborated on. Thereafter the term service oriented business model and its criteria will be more thoroughly presented. Finally, the implication of, the key term, service oriented circular business model, which both have the characteristics of a circular business model and a service oriented business model, will be more thoroughly introduced.

2.1 Circular Economy

The concept circular economy has been refined and developed by a number of schools of thought (EMF, 2015), some examples are:

- **Cradle-to-cradle:** A design philosophy resting on the principle “waste equals food”, since all materials are nutrients and can be continuously recovered and reutilised (McDonough & Braungart, 2002).
- **Performance economy:** Based on the concept of selling and buying utilisation of a product rather than the products itself (Stahel, 2010).
- **Biomimicry:** A discipline imitating nature’s best ideas in order to solve human problems (Benyus, 2002).
- **Industrial ecology:** The study of material and energy flows through industrial systems, resting on the idea of one industry’s waste is another industry’s input (Graedel & Allenby, 2003).

There are various interpretations of circular economy. Ghisellini et al. (2015) claim that the concept circular economy has been most commonly understood as an approach to more appropriate waste management. Zhijun and Nailing (2007) describe the circular economy as a model leading to a more sustainable development and harmonious society. The Chinese circular economy promotion laws define it as *“a generic term for the reducing, reusing*

and recycling activities conducted in the process of production” (CCICED, 2008). However, this study will use the definition created by the Ellen MacArthur Foundation since it is broadly accepted and probably is the most commonly used definition (Lewandowski, 2016):

“The 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. The concept distinguishes between technical and biological cycles”.

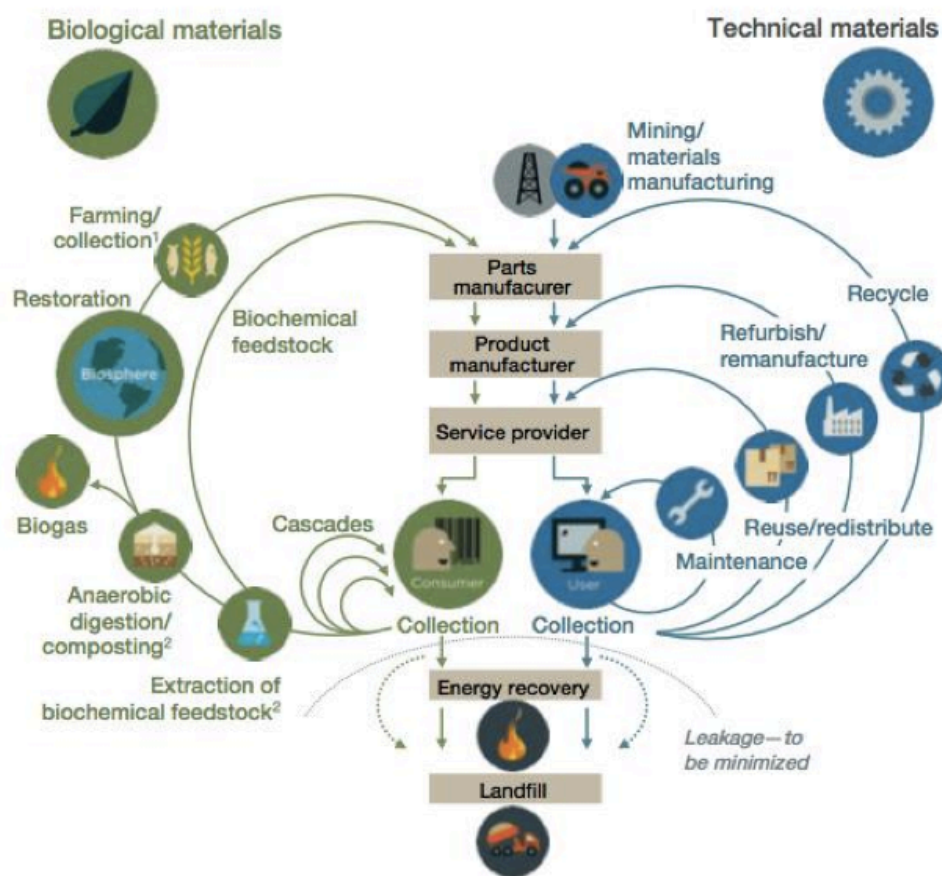


Figure 3 Circular Economy
Source: EMF (2015)

The circular economy aims to be regenerative in contrast to the current linear economy and is illustrated in figure 3. The circular economy aims to eliminate existing resource-related problems such as waste, toxicants, non-

renewable energy and carbon emissions. Ultimately, the circular economy could decouple economic growth from finite resource consumption by keeping biological and technical materials constantly flowing in material loops. Further, by constantly rebuilding capital the circular economy could also create jobs and generate growth (EMF, 2015).

2.1.1 Principles of the Circular Economy

This section will present the EMF's (2015) three principles of a circular economy, which will lay the foundation for this study's suggested circular business model criteria. Since EMF's work is broadly accepted and because the study is limited to a certain timeframe, this study will not present alternative principles of a circular economy (Lewandowski, 2016). The three principles outlined by EMF (2015) are formulated as following:

Principle 1

Preserve and enhance natural capital by controlling finite stocks and balancing renewable resource flows.

This principle includes the pursuit of dematerialisation, renewable energy, better-performing resources, and conditions for regeneration of natural capital (EMF, 2015).

Principle 2

Optimise resource yields by circulating products, components, and materials at the highest utility at all times in both technical and biological cycles.

This principle includes design for maintaining, reusing/redistributing, refurbishing/remanufacturing and recycling products and components created out of technical materials. The principle also includes that products or components created by biological materials are designed to re-enter the biosphere in order to be consumed/metabolised and regenerate new resource value (EMF, 2015).

Principle 3

Foster system effectiveness by revealing and designing out negative externalities.

This principle includes reducing damage to systems and the release of toxicants (EMF, 2015).

2.2 Circular Business Model

There are various opinions on how to define a circular business model. The following are examples of existing definitions of a circular business model:

“The rationale of how an organization creates, delivers and captures value with and within closed material loops”

- Mentink (2014) in Lewandowsky (2016)

“Aims to link up all material flows in an infinite process circle in order to use resources most efficiently and ideally don't create any waste”

- Forum of the future (2016)

“A business model in which the conceptual logic for value creation is based on utilizing the economic value retained in products after use in the production of new offerings” - Linder and Williander (2015)

Hence, there is not an obvious way to define a circular business model. However, one can agree on that a company with a circular business model operates according to the concept of a circular economy, which explains why this study uses EMF's three principles in order to determine a circular business model (Lewandowsky, 2016; Linder & Williander, 2015).

2.2.1 (A) Criteria

This study uses EMF's interpretation of a circular economy. Therefore, this study argues that a company with a circular business model should operate according to EMF's three principles of the circular economy. Consequently, based on the circular economy principles, five criteria for a product providing company have been identified. Whether a product providing company meets those criteria or not gives an indication on if the company has a circular business model or not.

Table 1 (A) Suggested Circular Business Model Criteria

This study's suggested circular business model criteria based on EMF (2015).

Criteria Code	Criteria	Circular Economy Principle
A1	Designs its product in order to meet criteria A2 & A4.	According to principle 2
A2	Circulates products created out of technical materials (in the following order of priority); maintain, reuse/redistribute, refurbish/remanufacture and recycle.	According to principle 2
A3	Does not use toxicants in products.	According to principle 3
(A4)	Allows products created by biological materials to re-enter the biosphere in order to be consumed/metabolised and regenerate new resource value.	According to principle 2
(A5)	Uses renewable energy as far as possible.	According to principle 1

2.2.2 Limitations of Suggested Criteria

The suggested criteria only capture the most important characteristics of a product providing company with a circular business model. For instance, whether the company is using the best performing materials or if the utility could have been dematerialised is not determined by the criteria. Neither are other negative externalities determined by the criteria, such as land use etc. (EMF, 2015).

Further, the criteria are solely based on EMF's three principles. Other interpretations of the circular economy would have generated different criteria. Which reduces the studies generalizability.

2.2.3 Limitations of Application of Suggested Criteria

First of all, since this study is limited to companies, which predominantly produce products out of technical material, criterion A4 has not been considered in this study.

Furthermore, due to the complexity of a company's energy use and this study's limited time frame, neither criterion A5 is included in this report.

2.3 Service Oriented Business Model

Making a transition from providing ownership of products to product-services and discussions on related scientific topics such as servitization and product service systems has been on the agenda for over twenty years (Tukker & Tischner, 2006; Tukker, 2004). However, Adrodegari et al. (2014) bring in business models into the discussion and explain the difference between ownership oriented business models and service oriented business models.

2.3.1 (B) Criteria

Adrodegari et al. (2014) describe how the product sales are the main source of revenue in an ownership oriented business model and that services comes as an add-on of the product. Whilst the main source of revenue in a service oriented business model is generated from the usage of the product and the ownership of the product is never transferred to the customer. Further, Adrodegari et al. (2014) divide service oriented business models into three categories: access focused, use-focused and outcome focused.

Access-focused imply that the customer pays a regular fee in order to access the product. Usage-focused imply that the customer pays a fee which depends on the actual usage of the product. The three cases in this study are either access or usage focused. However, outcome-focused imply that the customer pays a fee dependent on the achievement of a contractually set result. Further, the criteria of a service oriented business model are presented in the table below (Adrodegari et al., 2014).

Table 2 (B) Service Oriented Business Model Criteria

The table structures the criteria of a service oriented business model and is based on the work created by Adrodegari et al. (2014).

Criteria Code	Criteria
B1	The ownership of the product is never transferred to the customer.
B2	The revenue is generated from the usage of the product.
B3	Is either access-, usage- or outcome-focused.

2.4 Service Oriented Circular Business Model

The idea of moving from providing ownership of products to product-services is an important part of shifting business towards a circular economy (Webster, 2015; Tukker, 2013). This since it can enhance the reuse and maintenance of products (Adrodegari et al., 2014; Neely, 2008).

However, a company with a service oriented business model does not necessarily operate according to the circular economy. For instance, the products provided by a company with a service oriented business model might not be designed for material regeneration, remanufacturing, recycling or allowing biological materials to re-enter the biosphere (Boer et al., 2015; Planing, 2015; Webster & Johnson, 2009). Therefore, the concept service oriented circular business model is introduced in this study.

2.4.1 (A) & (B) Criteria

A service oriented circular business model can be viewed as a sub set of circular business models with the common characteristic of a service oriented business model, to provide access, usage or the outcome of products rather than ownership (Adrodegari et al., 2014). One can also look at a service oriented circular business model as a service oriented business model, which meets this study's suggested circular business model criteria. However, a service oriented circular business model shall meet both criteria (A) and (B).

Table 3 (A) & (B) Service Oriented Circular Business Model Criteria

The study suggests that a service oriented circular business model meets criteria (A) and (B).

Criteria Code	Criteria
A1	Designs its product in order to meet criterion A2.
A2	Circulates products created out of technical materials (in the following order of priority); maintain, reuse/redistribute, refurbish/remanufacture and recycle.
A3	Does not use toxicants in its product.
B1	The ownership of the product is never transferred to the customer.
B2	The revenue is generated from the usage of the product.
B3	Is either access-, usage- or outcome-focused.

3. Theoretical Framework

This section introduces the theoretical framework, the value proposition canvas, more thoroughly.

3.1 Value Proposition Canvas

This study will use the value proposition canvas when looking at how customer value is created in service oriented circular business models. As mentioned, the value proposition canvas is an extension of the business model canvas created by Osterwalder et al. (2015). It illustrates how customer value is created when there is a fit between the two business model components value proposition and customer segments. The value proposition canvas lays the foundation of the analysis and will be more thoroughly described in this section.

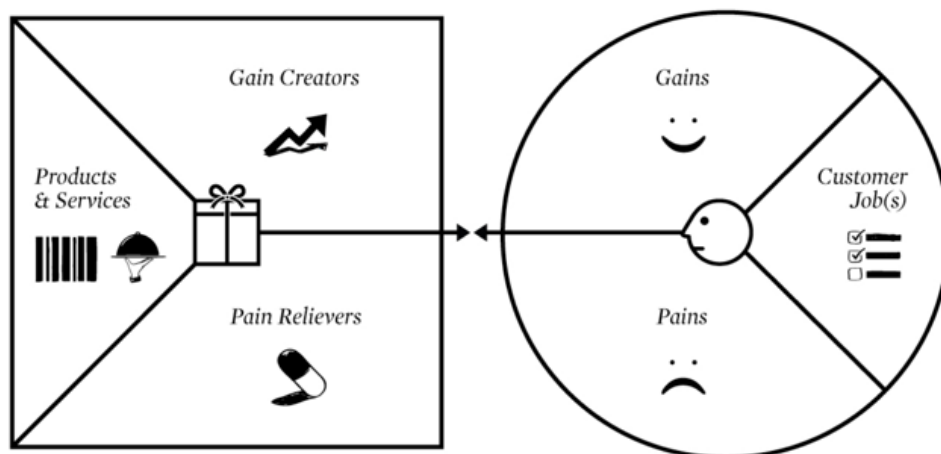


Figure 4 Value Proposition Canvas

Source: Osterwalder et al. (2015) (Strategyzer.com / Strategyzer AG)

3.1.1 The Customer Segments

The right side in figure 4 represents the customer segments, the different groups of people or organizations an enterprise aims to reach and serve. The right side is broken down in three parts: customer segment, customer job, customer pains and customer gains (Osterwalder et al., 2015).

The customer job describes what the customer is trying to get done in their work or life. It could be a problem/task/need the customer tries to solve/perform/satisfy (Osterwalder et al., 2015).

The customer pains are the costs of executing the job and can be divided into the three categories; undesired outcomes, obstacles and risks. The customer gains are the benefits the customer requires, expects, desires or would be surprised by (Osterwalder et al., 2015).

3.1.2 The Value Proposition

The left side in figure 4 represents the value proposition, the bundle of products and services that create value for a specific customer segment. The value proposition is broken down into the three parts; products and services, pain relievers and gain creators (Osterwalder et al., 2015).

The gain creators describe how the products and services create customer gains. The pain relievers describe how the products and services alleviate customer pains (Osterwalder et al., 2015).

3.1.3 Fit

Customer value is created when fit is achieved. Hence, fit between the customer segments and the value proposition. In other words, between what the company offers and what the customers want. Thus, customer value is created when fit between the customer's gains/pains and the offered gain creators/pain relievers are achieved (Osterwalder et al., 2015).

3.1.4 Limitations of its Application

Normally a business model has more than just one customer segment and one customer job. However, due to the time frame of the study those factors had to be simplified. Therefore only one general customer segment and one customer job, which applies to the majority of the customers has been used (Osterwalder et al., 2015).

Normally a business model also has more than one product or service. Due to the same reason this part of the value proposition canvas also had to be simplified. Therefore all subordinate, in this case, services has not been mentioned and are instead fused into one service, which describes the core of the business (Osterwalder et al., 2015).

The customer value procedure is in other words looked at as one customer segment performing one customer job, which is gaining and relieving pain from one service, which is a simplification of reality. The focus has instead been on listing the gain creators, pain relievers and customer gains/pains (Osterwalder et al., 2015).

3.1.5 Limitations of its Suitability

This study is looking into how customer value is created towards the end-user of a product. Therefore an important note is that two of the later on presented companies have agreements with intermediaries. Technically this implies that the end-users are not their customers. However, this study argues that the value proposition canvas still is a suitable framework for looking at customer value creation towards the end-users, since who is providing the product to the end-user does not have a big impact on the pain relievers and gains creators (Svensson, 2016; Erlendsson, 2016; Piirainen, 2016; Osterwalder et al., 2015).

4. Methodology

This section is presenting the study's research approach, research design, data collection, selection procedure and data analysis.

4.1 Research Approach

The research approach has elements from both an inductive and a deductive approach. Using only an inductive approach would have prevented this research to benefit from using existing theory. Using solely a deductive approach would have prevented the research to benefit from adding new insights (Carson et al., 2001).

Due to the deductive approach, the value proposition canvas can be used as a frame for this research when collecting the data. Moreover will the inductive approach allow for new insights to emerge during the time of the study (Carson et al., 2001).

4.2 Research Design

This section will describe why the research design case study is chosen and why qualitative data has been gathered.

4.2.1 Case Study

The research design chosen is case study since it is appropriate for a research aiming to gain rich understanding of a specific context (Bryman & Bell, 2011), which aligns with the research objective of this study. A case study involves an empirical investigation of a particular contemporary phenomenon within its real life context (Bryman & Bell, 2011). In this

research, an empirical investigation of the customer value creation in the context of service oriented circular businesses models will be conducted.

4.2.2 Qualitative Data

Choosing a qualitative method makes it possible to conduct an intensive and detailed review of a specific context, which in this research is customer value creation in service oriented circular business models (Bryman & Bell, 2011). Qualitative data collection focus on open-ended questions and free-flowing interviews rather than surveys and statistics. The reason for choosing a qualitative method, over a quantitative, is because it allows the researcher to ask open questions, which enables the respondents to go off the topic, instead of being restricted to closed end-questions. It will allow this research to go below the surface of customer value creation, and touch on the topics the respondent decides to discuss (Bryman & Bell, 2011).

4.3 Selection Procedure & Data Collection

This section will describe the selection procedure, the data collection and why semi-structured interviews were conducted.

4.3.1 Selection

The selection of service oriented circular business models are based on this study's suggested criteria for a service oriented circular business model, in other words the suggested (A) circular business model criteria and the suggested (B) service oriented business model criteria.

The selection is based on convenience sampling, as the population of companies meeting both criteria (A) and (B) is diminutive. Moreover, time-consuming in-depth interviews are required, which also infer that convenience sampling is the most appropriate alternative for this study (Bryman & Bell, 2011). Based on above-mentioned selection criteria following companies have been selected:

Table 4 Selected Companies

The table shows an overview of the selected companies. The selected companies will be more thoroughly presented in the result and analysis section.

Company	Country	Industry
Vigga	Denmark	Clothing
Enso	UK	Tyre
Repack	Finland	Packaging

4.3.2 Limitations of Selection

Criterion B1 implies that the ownership of the product never is transferred to the user. This is not the case in Repack. Technically the ownership of the packaging is transferred to the end-user. However, this study makes an exception since Repack is responsible for the utility of the packaging and is operating according to criteria (B2) and (B3).

4.3.3 Data Collection & Semi-Structured Interviews

To generate primary qualitative data, various techniques can be used, as for example, interviews, focus groups and observations (Bryman & Bell, 2011). This research has chosen to conduct interviews with people representing the selected companies who possess a good understanding of their customers, in order to ask them questions related to how their organisations are creating customer value.

More specifically, the research has used semi-structured interviews since it enables the research to align the questions with the theoretical framework of the value proposition canvas (Bryman & Bell, 2011). The interview questions are based on a question-set developed by Osterwalder and Pigneur's (2013) work, but was adjusted in order to suit the language of the people interviewed and the timeframe of the interviews, see interview questions in appendix.

Semi-structured interviews also allowed the interview to touch on specific topics, without taking away the respondent's freedom to structure the answers in their own way (Bryman & Bell, 2011). Semi-structured interviews also made it possible to adapt the order and number of questions for the specific interview. Moreover the semi-structured interviews allowed the researcher to gain deeper into specific topics during the interviews.

Hence, if the respondent gave an unclear answer or the researcher wanted more details, follow-up questions were asked (Bryman & Bell, 2011).

The first interview with each respondent lasted between 60-120 minutes. One of the interviews was conducted face-to-face, as the geographic location made it possible. The other two interviews were conducted over phone.

The researcher complemented the first interviews with a follow-up interview, which in all cases lasted approximately 30 min. During the second interview the interviewed person was asked to elaborate on previously offered answers.

Table 5 Respondents & Interviews

The table shows an overview of the respondents and the interviews.

Name	Title	Company	Interview type	Time (Min)
Peter Svensson	Co-Founder & Associate Director	Vigga	Face to face + Phone	120 + 30
Gunnlaugur Erlendsson	Founder	Enso	Phone + Phone	90 + 30
Petri Piirainen	COO	Repack	Phone + Phone	60 + 30

The persons representing the companies were not easy to get hold of. They were either approached during a circular economy event at Copenhagen Business School, with help from contacts at Ellen MacArthur Foundation or by email. Ideally more than one person per company could have been interviewed in order to increase the validity of the study. But due to the difficulty of getting hold of people representing the companies, the study has instead complemented the interviews with the data presented in Table 6 (Bryman & Bell, 2011).

Table 6 Complementing Data

The table shows an overview of the complementing data.

Company	Complementing Data
Vigga	Website, Lecture, Slideshow
Enso	Website
Repack	Website, Documents

4.4 Data Analysis

The interviews were recorded and transcribed. When analysing the transcriptions certain patterns were found and data could subsequently be sorted and placed into the structure of the value proposition canvas.

4.4.1 Training

In order to properly analyse the gathered data, it is necessary to have an in-depth understanding of the studied area and theory (Bryman & Bell, 2011). In this study it is therefore important to have an in-depth understanding of the implication of a business model, the business model canvas and the value proposition canvas. Therefore the researcher took a 15 hours online business model innovation course offered by Edlegio. Further, the researcher improved the understanding of customer value creation, service oriented business models and circular economy by having multiple interactions with three experts who assisted the researcher with insights and relevant articles.

Table 7 Experts

The table shows an overview of the experts the researcher was assisted by.

Name	Title	Company/Org	Expert Area	Phone Calls x 30 min
Viktor Häggander	Manager	Cordial Stockholm	Business models & customer value creation	3
Federico Adrodegari	Researcher	University of Brescia	Service oriented business models	3
Joe Murphy	Network Manager	Ellen MacArthur Foundation	Circular economy in a business context	10

5. Result/Analysis

This section applies the value proposition canvas, according to the theoretical framework, on each of the three studied cases in order to highlight identified fits, in other words demonstrate how the selected companies Vigga, Enso and Repack are creating customer value.

5.1 Vigga

This section begins with a short presentation of the company Vigga and a table which explains how Vigga meets the criteria of a service oriented circular business model, criteria (A) and (B).

Thereafter the identified fits between Vigga's gain creators/pain relievers and the customer segment "parents" gains/pains while performing the task "dress their child" are presented. The section is summarized with a value proposition canvas applied on Vigga.

5.1.1 Company Description

Vigga have developed a subscription solution for children's clothing with unprecedented high and unique quality, which enables more children to benefit from the same clothes (Vigga, 2016; Svensson, 2016b). The table below shows how Vigga meets this study's criteria of a service oriented circular business model:

Table 8 Vigga Meets the Suggested (A) & (B) Criteria

The information in the table is based on Vigga (2016), Svensson (2016), and Svensson (2016b).

Criteria Code	Vigga
A1	Uses high quality- and pure material and designs the garments in order to maintain, reuse, remanufacturing and recycle them.
A2	Maintains and redistributes the same garments in between many children, remanufactures the garments before they are recycled as furniture filling.
A3	Toxic free garments.
B1	The ownership of the garments is never transferred to the users, in other words Vigga is responsible of the utility of the garments.
B2	The revenue is generated from the usage of the garments; the more the garments are used the higher revenues Vigga earns.
B3	Vigga is access oriented, since they provide access to the garments.



Figure 5 How Vigga Works

Source: Svensson (2016b)

5.1.2 Fits Between Gain Creators & Customer Gains

In this section, the identified fits between Vigga's Gain creators and the customer segment "parents'" gains are presented. The different fits are underpinned by data and quotes from the interview.

Fit (A) Lower Price & Save Money

Fit (A) represents how Vigga create customer value by offering low price solutions matching many parent's desire to save money when performing the task "dress their child".

Svensson (2016) explains how dressing a child, especially when it comes to design- and quality-wear, can be a very expensive task:

"If you look at what the price pot normally is, the reselling price of children's wear and the limited time use, it can be super expensive".

Further, Svensson (2016) argues that Vigga's collaborative financing model meets their customers desire to save money in an effective way. Svensson (2016) captures one of the benefits with the concept of a collaborative financing model with the following quote:

"We have a product which is too expensive to buy on your own. But since we have a model where we share the product and can split the costs in more rounds we can benefit from it all".

However, Svensson (2016) also brings up that dealing with the garments during their whole life span also implicates additional costs, such as costs associated with the reclaiming of the garments, making quality inspections and washing the garments etc.

Svensson (2016) continues on the same topic and explains:

"Depending on how well the garment can be maintained and how many times the same piece of garments can be resold, the durability, gives an indication on what cost savings we can offer to the customers, but also how much money we can make".

Svensson (2016) concludes his reasoning by mentioning that they are very happy with what cost savings they can offer their customers.

Fit (B) High Quality Garments & Luxury Feeling

Fit (B) represents how Vigga create customer value by offering high quality garments matching their customer's appreciation of the luxury feeling it entails.

As described in the previous section, the durability of the garments is a key factor when it comes to the company's profitability. The durability is to a large extent enabled by the garment design and the high quality. However, the high quality of Vigga's garments is not only enabling Vigga to circulate them, the high quality is also very appreciated by the customers for other reasons. Svensson (2016) explains:

"We are lucky that people both can recognise our high quality garments visually and sense it with their hands. People now a days are not used to high quality garments, and this is a very strong intuitive thing which people seem to appreciate and entails some kind of luxury feeling".

Svensson (2016) also displays why most garment makers cannot match Vigga's quality, by imitating a conversation between a designer and the sales-division in a traditional garment company:

"The designer asks the sales-division: Can we sell this T-shirt for 39 euro?"

The sales-division replies: No, we need to sell it for 29 euro in order to be competitive.

Then the designer will say: That will be difficult...but hmmm... if I change material or cut of a sleeve maybe it will be possible to sell it for 29 euro".

Svensson (2016) continues on the same topic:

"There is always some kind of compromise. Here at Vigga we try to not make compromises, neither for us as producers or for the customers".

Fit (C) Non Toxic (and Clean) & Healthy Child

Fit (C) represents how Vigga create customer value by offering non-toxic and clean garments, which matches the parents' need to keep their children healthy.

According to Svensson (2016) parents in general care a lot about what is put next to their children's skin since the health of a child is very important. Vigga matches this need by providing a non-toxic quality garment. Vigga is also, in contrast to many other second hand options, carefully inspecting and

washing their clothes, before they are handed over to next child. Svensson (2016) describes how Vigga is different from other similar options:

“Vigga’s process is under control, so you don’t get, lets say, something dirty that someone sent to you privately. We are trying to be like a five star hotel. We want the garments to look as new, not torn and used”.

Fit (D) New Way Providing Children's Clothes & Early-Adapter-Feeling

Fit (D) represents how Vigga create customer value by having developed a new concept, which matches some of the customers desire to feel like an early adapter.

Svensson (2016) believes some customers, especially men, like being part of their concept because it is new. He says he can sense how the customers like subscriptions, pressing buttons and how it makes them feel smart.

Fit (E) Community Feeling & Belonging

Fit (E) represents how Vigga create customer value by having established a community feeling around the brand, which matches some of the customers desire to feel belonging.

Svensson (2016) mentions what they tell their customers:

“We are making this together, join our journey and be part of the making”.

Svensson (2016) continues on the same topic and explains that they are trying to create a movement around Vigga. He also mentions that he can sense from people’s behaviour that they like doing this together and how he can see some kind of pride from the people participating. Svensson (2016) concludes his reasoning by saying:

“We are able to set the bar and make this a smart system, where more people benefit from doing this together”.

Fit (F) Design Wear & Child Image

Fit (F) represents how Vigga create customer value by providing children’s design wear, which is something many parents are looking for.

Svensson (2016) says:

“I think parents in general care a lot about what people in their surroundings think of when they see their child and they really want others to recognise their child as something beautiful”.

5.1.3 Fits Between Pain Relievers & Customer Pains

In this section, the identified fits between Vigga's pain relievers and the customer segment "parents'" pains are presented. The different fits are underpinned by data and quotes from the interview.

Fit (G) Save Resources & Having Negative Environmental Impact

Fit (G) represents how Vigga create customer value by providing a solution saving resources which matches some of the customers who want to avoid having negative impact on the environment.

Svensson (2016) explains how Vigga is saving resources by producing garments, which are designed to last and utilised over a long period by many children. When the garments can't be used any more they are refurbished and made into new garments. This is done until the textiles can't be used for making garments any more, then they are given away for other purposes. Svensson (2016) says:

"I think it must be a nice thing, especially for customers caring about sustainability, to know that being in a system like ours is reducing their impact a lot".

Fit (H) Takes Care of Outgrown Clothes & Stock Not Used Clothes

Fit (H) represents how Vigga create customer value by offering a solution which matches many of the customers who want to avoid stocking clothes which no longer suits the child.

Svensson (2016) explains how Vigga takes care of outgrown garments and how this enables parents to save space at home. Svensson (2016) states:

"Having your wardrobe into order when being parents can be nice, especially for the people which parenthood is not going as successfully as they imagined".

Svensson (2016) continues and claims there are not many reasons for why people would be willing to stock outgrown children's clothes:

"If the child outgrows it, why would they want to stock it? The only reason I can come up with is sentimental reasons or if they can make some kind of investment and use it for the next child, but the reselling price of today's standard children's garments is normally very low".

Fit (I) Deliver Clothes in Child's Size & Shopping and Finding Right Size

Fit (I) represents how Vigga create customer value by offering a solution, which enables many of their customers to optimise time use. Svensson (2016) says:

“The fun thing is that if we ask customers, mothers in particular: do you mind spending time shopping? Everybody would say: no, it’s great! But we are challenging that, we would like to optimise the time use for our customers and want to show them what else you can do with your child than shopping”.

Svensson (2016) explains how their customers often come back to us after they have tried Vigga and says that they appreciate having more time to spend with their child when being customers to Vigga.

Fit (J) Long Term Solution & Make Comparative Purchase Decisions

Fit (J) represents how Vigga create customer value by offering a long term solution, which assists customers who are hassling with constantly having to make comparative purchase choices.

Svensson (2016) explains how they deliver a set of clothes, which last for a longer period. He also mentions that it can be time consuming to constantly try to find the right sizes and bargains for parents.

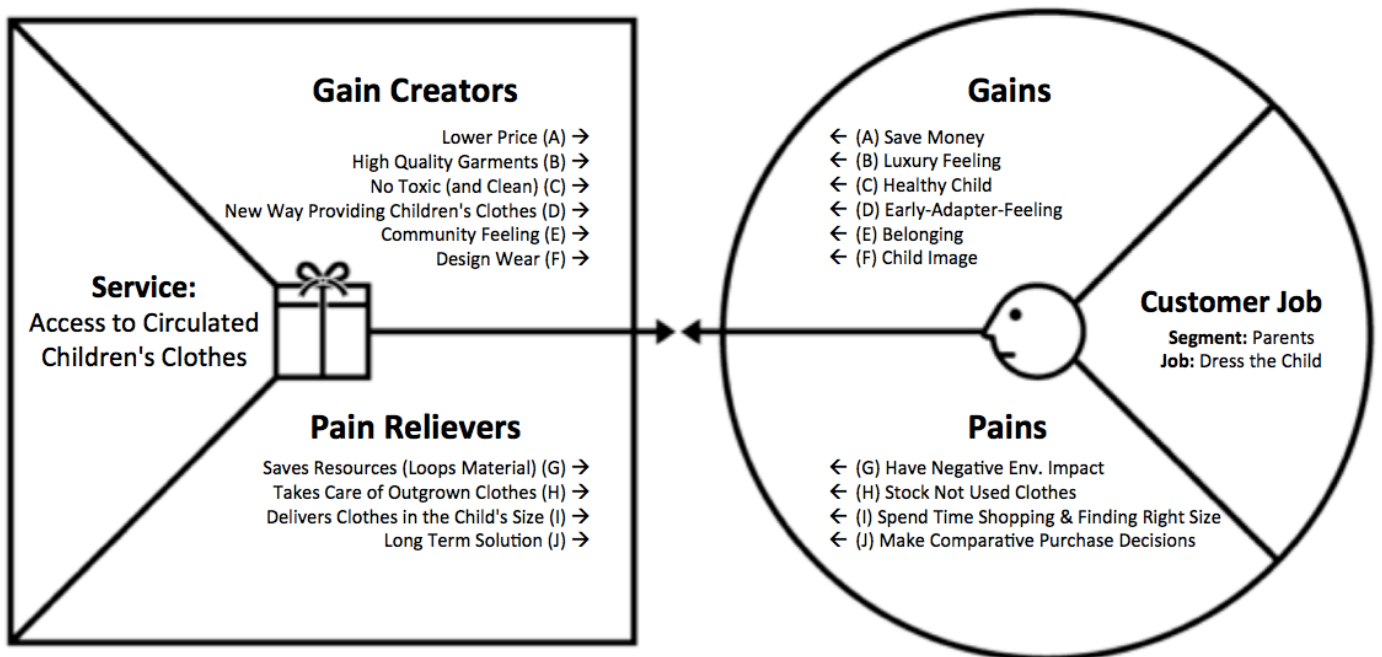


Figure 6 The Value Proposition Canvas Applied on Vigga

Source: Svensson (2016), Svensson (2016b), Vigga (2016), Osterwalder et al. (2015) (Strategyzer.com / Strategyzer AG)

5.2 Enso

This section begins with a short presentation of the company Enso and a table which explains how Enso meets the criteria of a service oriented circular business model, criteria (A) and (B).

Thereafter the identified fits between Enso's gain creators/pain relievers and the customer segment "electric-vehicle-buyer's" gains/pains while performing the task "get the car rolling" are presented. The section is summarized with a value proposition canvas applied on Enso.

5.2.1 Company Description

Enso have developed a subscription solution for clean tyres suiting electric vehicles. Their unique compound enables Enso to pulverise end-of-life tyres and use them as inputs to new tyres.

Table 9 Enso Meets the Suggested (A) & (B) Criteria

The information in the table is based on Erlendsson (2016) and Enso (2016).

Criteria Code	Enso
A1	Uses high quality/pure material and designs the tyres in order to maintain and facilitate remanufacturing of them.
A2	Provides more durable tyres and continuously re-manufactures them, only small parts are transformed into waste due to friction against the road.
A3	Toxic free tyres.
B1	The ownership of the Tyres is never transferred to the users, in other words Enso is responsible of the utility of the tyres.
B2	The revenue is generated from the usage of the tyres; the more the Tyres are used the higher revenues Enso earns.
B3	Enso is access oriented, since they provide access to tyres.

5.2.2 Fits Between Gain Creators & Customer Gains

In this section, the identified fits between Enso's gain creators and the customer segment electric-vehicle-buyer's gains are presented. The different fits are underpinned by data and quotes from the interview.

Fit (A) Lower Price & Save Money

Fit (A) represents how Enso create customer value by offering low price solutions matching many "electric vehicle buyers" desire to save money.

Erlendsson (2016) explains how Enso by cooperating with electric vehicle providers can enable lower vehicle prices to the electric-vehicle-buyers.

"Our customers don't have to pay for the ownership of the tyres since we provide the tyres as a service. Since we own the tyres and since we have developed a clean tyre-compound we can pulverise worn out tyres and use them as inputs to new tyres".

Erlendsson (2016) continues and mentions that: 10-20 percentage of the compound is gone due to tearing during its usage, but that 80-90 percentage is left for re-usage, which results in lower material costs.

Fit (B) More Energy Efficient Tyres & Less Frequently Charge Vehicle

Fit (B) represents how Enso create customer value by offering more energy efficient tyres, which meets the electric-vehicle-buyers desire to drive long distances without charging the vehicle.

Erlendsson (2016) describes how this is working and says:

"With the same amount of energy, you can drive longer distances with our tyres compared with the standard tyres on the market".

Fit (C) More Durable Tyres & Less Frequently Change Tyres

Fit (C) represents how Enso create customer value by offering more durable tyres, which matches the electric-vehicle-buyer's appreciation of driving without having to change tyres.

Erlendsson (2016) explains that this is possible since the tyres are designed to last and that their tyre-compound has unique quality, which makes their tyres more durable than standard tyres on the market.

Fit (D) New Way of Providing Tyres & Early-Adapter-Feeling

Fit (D) represents how Enso create customer value by having developed a new concept matching some off their customers desire to feel like an early adapter.

Erlendsson (2016) explains how very little disruption has been made in the tyre industry except from making it cheaper. Erlendsson (2016) also says that their idea might be more attractive to some customers since it is a new concept.

5.2.3 Fits Between Pain Relievers & Customer Pains

In this section, the identified fits between Enso's pain relievers and the customer segment electric-vehicle-buyer's pains are presented. The different fits are underpinned by data and quotes from the interview.

Fit (E) Saves Resources & Have Negative Environmental Impact

Fit (E) represents how Enso create customer value by offering a solution, saving resources which matches electric-vehicle-buyers who want to avoid the situation where they have negative impact on the environment. Erlendsson (2016) explains how they offer a sustainable solution and how it differs from the rest of the industry:

“The tyre industry is a big industry to tackle, that consumes enormous amounts of materials and chemicals. It's all about consumption and waste. The tyres today are designed to be worn-out after normally three to four years”.

Fit (F) Announces When to Change & Remember When to Change

Fit (F) represents how Enso create customer value by offering a solution which matches the electric-vehicle-buyers who find it annoying to have to remember when to change tyres.

Erlendsson (2016) describes how they by data sensors now how long distances the car has driven and therefore also know when they need to change tyres and says:

“We call them when they need to change tyres”.

Fit (G) Assist at Car Site & Tyre Problems

Fit (G) represents how Enso create customer value by offering a solution which matches their customers will to avoid problems associated with tyre problems such as flat tyres.

Erlendsson (2016) describes how they by the data sensors also know when a customer for example gets a flat tyre.

“We know if they get a flat tyre and we will get to the car site and solve the problem”.

Fit (H) Takes Care of Not Used Tyres & Stock Tyres

Fit (H) represents how Enso create customer value by providing tyres as a service, which matches some customers who want to avoid storing tyres in their homes.

Erlendsson (2016) describe how they take care of tyres that should not be used anymore but also mentions that most companies providing ownership of tyres also offers a solution where they take care about worn out tyres.

Fit (I) Changes Tyres at Car Site & Spend Time Changing Tyres

Fit (I) represents how Enso create customer value by changing tyres at the car site, which matches customers who want to avoid spending time changing tyres.

Erlendsson (2016) describes how they are trying to provide “hassle-free” and “worry-free” tyres and says:

“Our customers just have to park their car some where, it needs no effort. It takes us two minutes to change their tyres”.

Fit (J) Long Term Solution & Make Comparative Purchase Decisions

Fit (J) represents how Enso create customer value by providing a long-term solution, matching customers who are hassling with having to make comparative purchase choices.

Erlendsson (2016) explains how it is difficult to make a comparative purchase decision today and says:

“The different options in todays industry is confusing for many customers and it’s almost impossible to make a comparative choice”.

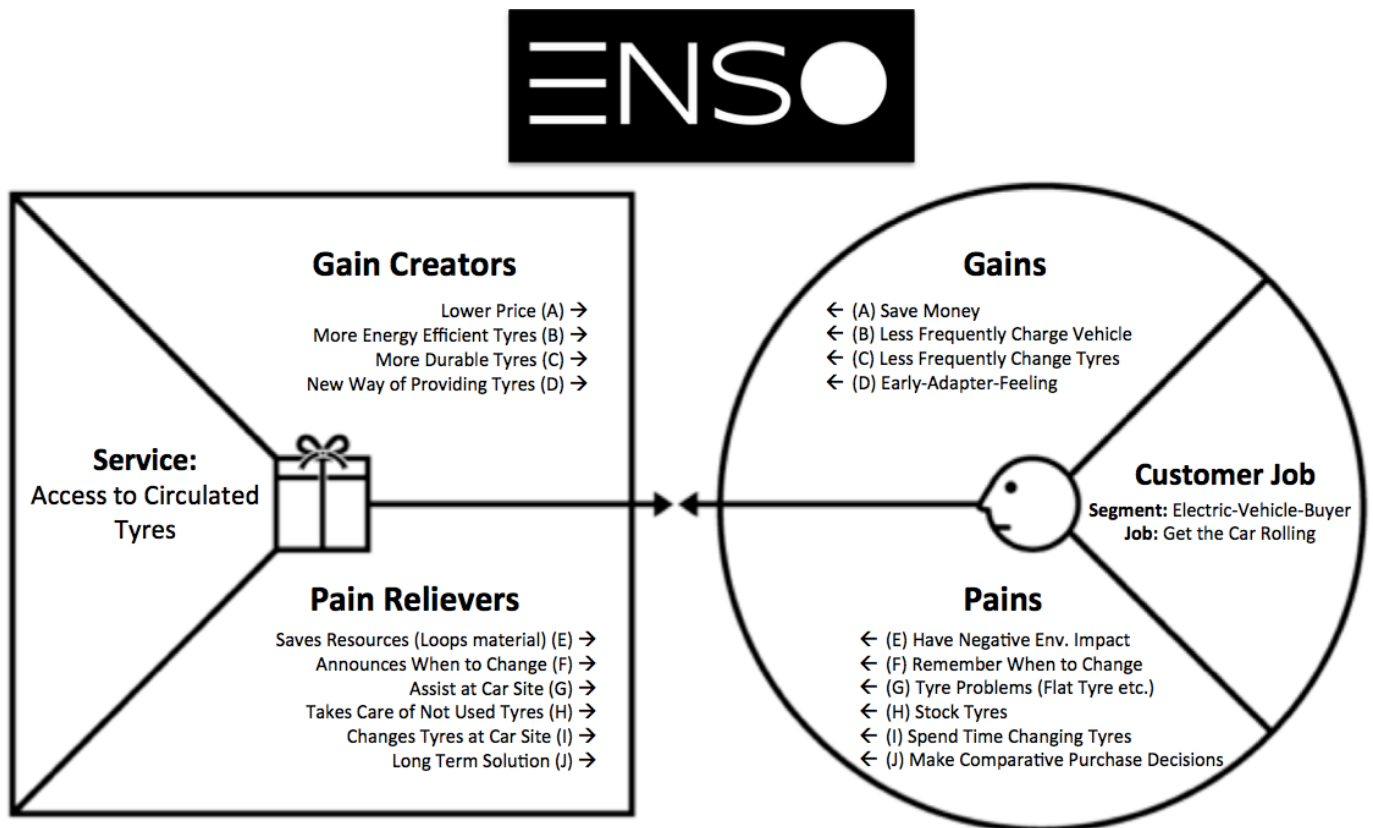


Figure 7 The Value Proposition Canvas Applied on Enso

Source: Erlendsson (2016), Enso (2016), Osterwalder et al. (2015)
(Strategyzer.com / Strategyzer AG)

5.3 Repack

This section begins with a short presentation of the company Repack and a table which explains how Repack meets the criteria of a service oriented circular business model, criteria (A) and (B).

Thereafter the identified fits between Repack's gain creators/pain relievers and the customer segment "online-shopper's" gains/pains while performing the task "protect the product" are presented. The section is summarized with a value proposition canvas applied on Repack.

5.3.1 Company Description

Repack has developed an e-commerce voucher program enabling packaging to be returned, reused and recycled. When the product is delivered, the customers, drops the packaging in a post-box, for free, and receives a digital voucher in return which can be used at any of the web-shops Repack collaborates with (Repack, 2016a).

Table 10 Repack Meets the Suggested (A) & (B) Criteria

The info in the table is based on Piirainen (2016), Repack (2016a), Repack (2016b).

Criteria Code	Repack
A1	Uses high quality- and the pure material propylene and designs the packaging in order to maintain, redistribute and recycle them.
A2	Provides more durable packaging and redistributes it in-between many online shoppers before it is recycled as propylene.
A3	Toxic free packaging.
B1	Technically the ownership of the packaging is transferred to the users but Repack is responsible of the utility of the packaging and regains the ownership of the packaging when it is handed back.
B2	The revenue is generated from the usage of the packaging, the more the packaging are used the higher revenues Repack earns.
B3	Repack is use oriented, since they provide usage of packaging.



1. Pick me when placing an order.
2. Simply mail me back by post, for free.
3. You are rewarded with a voucher.
4. Use your voucher at any **RePack store**.

8 How Repack Works

Source: Repack (2016a)

5.3.2 Fits Between Gain Creators & Customer Gains

In this section, the identified fits between Repack's gain creators and the customer segment online-shopper's gains are presented. The different fits are underpinned by data and quotes from the interview.

Fit (A) Discount on Next Purchase & Save money

Fit (A) represents how Repack create customer value by enabling discounts on next purchase which matches some of the online shoppers desire to save money.

Piirainen (2016) describes how an online-shopper choosing Repack normally have to pay 3.5 euro extra but receives a voucher with 10 percentage off on next purchase at any of the 15 web-shops Repack currently cooperates with.

“When you return the empty package, by folding it and dropping it in the letter box we will send you an email with a link to the web-shops that are using Repack and you can use the voucher”.

Piirainen (2016) continues and says:

“Most web-shops don’t care how much you will buy next time, but a few just accepts the voucher if you buy for more than 50 or 70 euro”.

Further more, 91 % of all the vouchers are claimed according to Repack (2016a).

Fit (B) Quality Packaging & Packaging Matching Product

Fit (B) represents how Repack create customer value by providing quality packaging which makes some customers positively surprised when the packaging matches the product.

Piirainen (2016) explains how he thinks online-shoppers often feel disappointed when the “normal” packaging doesn’t match the often cool image of the purchased product and explains how Repack differs from the “normal” packaging:

“We have developed a quality and design package and we hope that creates a better web-shop experience for our customers”.

Fit (C) New Way Providing Packaging & Early-Adapter-Feeling

Fit (C) represents how Repack create customer value by having developed a new concept matching some off their customers desire to feel like an early adapter.

Piirainen (2016) explains that a lot of customers like Repack because it is a new concept.

“A common reason for why customers choose Repack is because they think we have a cool idea, a new idea and they like trying new things”.

5.3.3 Fits Between Pain Relievers & Customer Pains

In this section, the identified fits between Repack’s pain relievers and the customer segment online-shopper’s gains are presented. The different fits are underpinned by data and quotes from the interview.

Fit (D) Saves Resources & Have Negative Environmental Impact

Fit (D) represents how Repack create customer value by providing a solution saving resources which matches some of the customers who want to avoid having negative impact on the environment.

Piirainen (2016) explains how Repack's packaging saves resources since the packaging is of high quality and therefore can be reused amongst many online-shoppers. Moreover according to Piirainen (2016) the pure propylene, which the packaging is manufactured from, makes it clean enough to be recycled as propylene when the packaging cannot be used any more.

Piirainen (2016) also explains why many of their customer chooses Repack:

"If you are buying online you are buying disposable packaging as well. We want to give you a better alternative and many of our customers are looking for sustainable products, for their sustainable lifestyle".

Piirainen (2016) continues:

"Now a days many consumers know that consumption has a lot of bad influence on the environment. They have a bad conscious about consuming and maybe their consciousness gets better when they use Repack".

Fit (E) Waste-Free Solution & Large Amounts of Waste at Home

Fit (E) represents how Repack create customer value by providing a waste-free solution, which matches some of the online-shoppers who want to avoid having large amounts of waste at home.

Piirainen (2016) states that Repack is aiming to eliminate waste and explains how this also has positive effects on the customers:

"Lots of people who are using Repack they say that they don't like to handle packaging waste or see the packaging waste in their home. When choosing Repack you do not have this situation, because Repack is not waste; Repack is valuable".

Fit (F) Easy-to-Open-Packaging & Problems with Opening the Package

Fit (F) represents how Repack creates customer value by providing Easy-to-Open-Packaging which matches many of the online-shoppers who want to avoid the situation were they have problems with opening the packaging.

Piirainen (2016) explains how Repack differs from most of the disposable packaging:

"The packaging itself is better, its easier to use, you don't need any tools, to open the package".

Piirainen (2016) continues on the same topic:

“Lots of studies show that the opening of the package is the most important moment when shopping online, because it’s the first time when you actually touch anything concrete from the web-shop. You touch on something with your hand”.

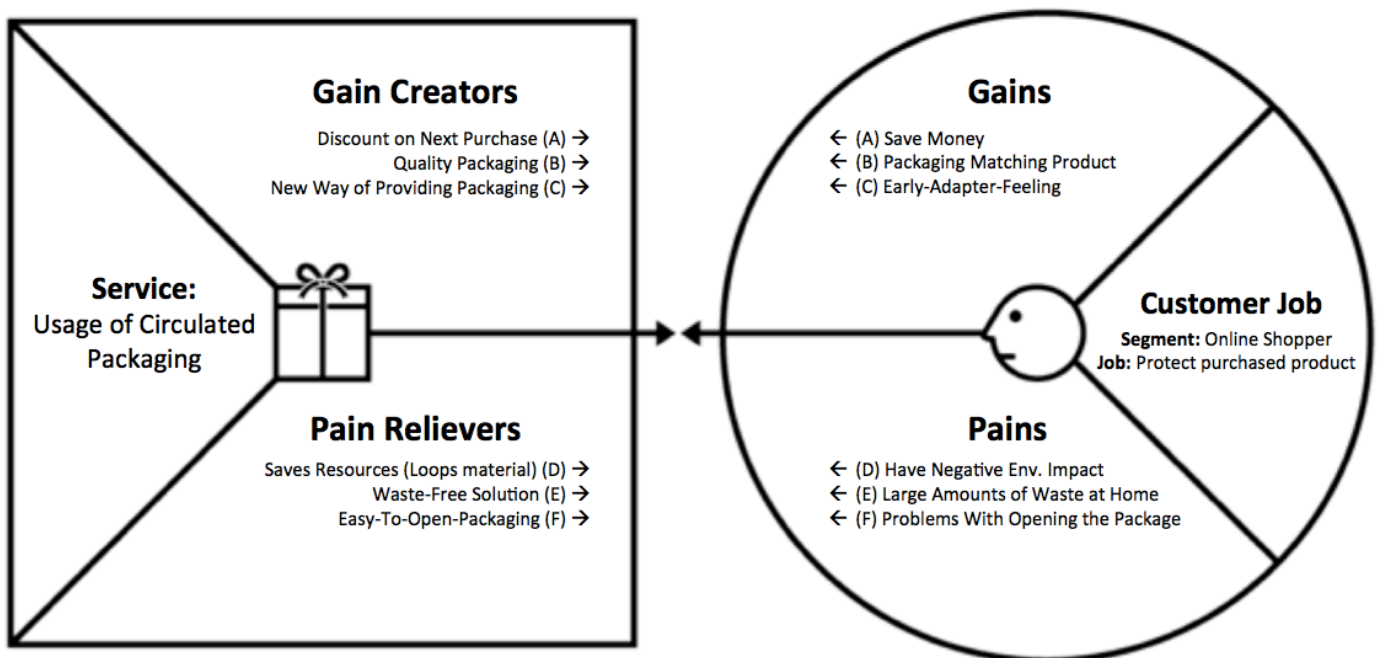


Figure 9 The Value Proposition Canvas Applied on Repack

Source: Piirainen (2016), Repack (2016a), Repack, (2016b), Osterwalder et al. (2015) (Strategyzer.com / Strategyzer AG)

6. Discussion

In this section the results from the three cases will be compared and similarities between the identified fits will be put forward by the use of colour coded value proposition canvases. Secondly the findings are discussed in relation to previous research. Thereafter reflections on methodological limitations will be discussed and finally further research will be suggested.

6.1 Similarities Between the Three Cases

This section will present three colour coded value proposition canvases, one on each company, and one summarizing value proposition canvas showing identified similarities between the fits in the different cases. Thereafter a discussion on the findings in relation to previous research is presented.

6.1.1 Colour Coded Value Proposition Canvases

When comparing the three canvases, certain patterns on how customer value is created was identified; most of the fits between gains and gain creators are in various degrees related to: (1) **Money savings**, (2) **Quality** or an (3) **Early-adapter-feeling**. Whilst the fits between pain relievers and pains in various degrees related to (4) **Reduced negative environmental impact** (5) **Convenience** or (6) **Time Savings**.

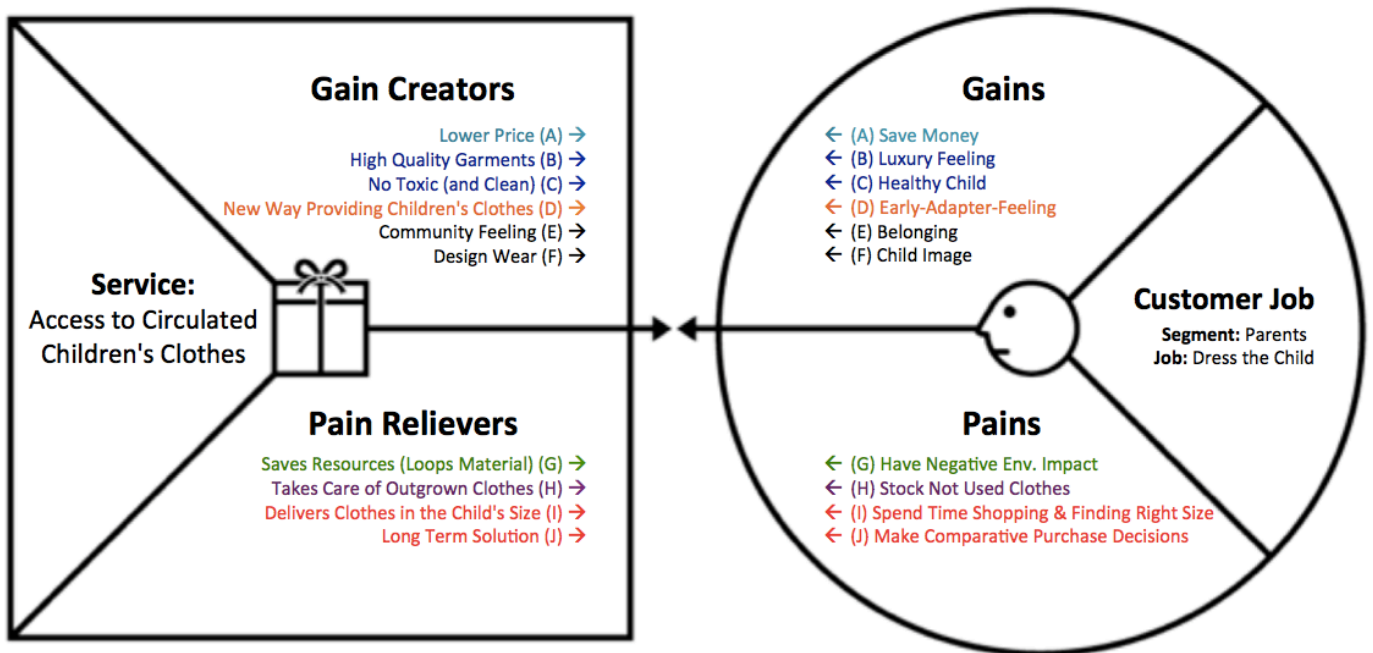


Figure 10 Colour Coded Value Proposition Canvases Applied on Vigga
 Source: Svensson (2016), Svensson (2016b), Vigga (2016), Osterwalder et al. (2015)
 (Strategyzer.com / Strategyzer A)

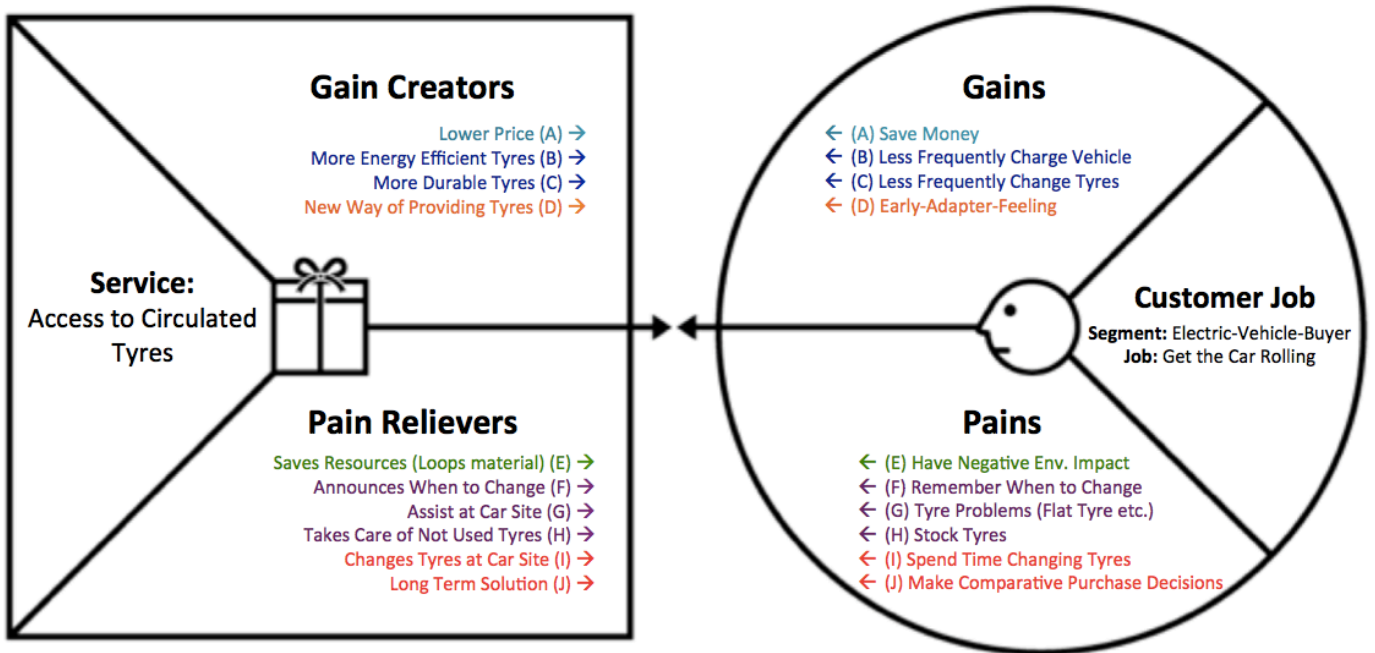


Figure 11 Colour Coded Value Proposition Canvases Applied on Enso
 Source: Erlandsson (2016), Enso, (2016), Osterwalder et al. (2015)
 (Strategyzer.com / Strategyzer A)

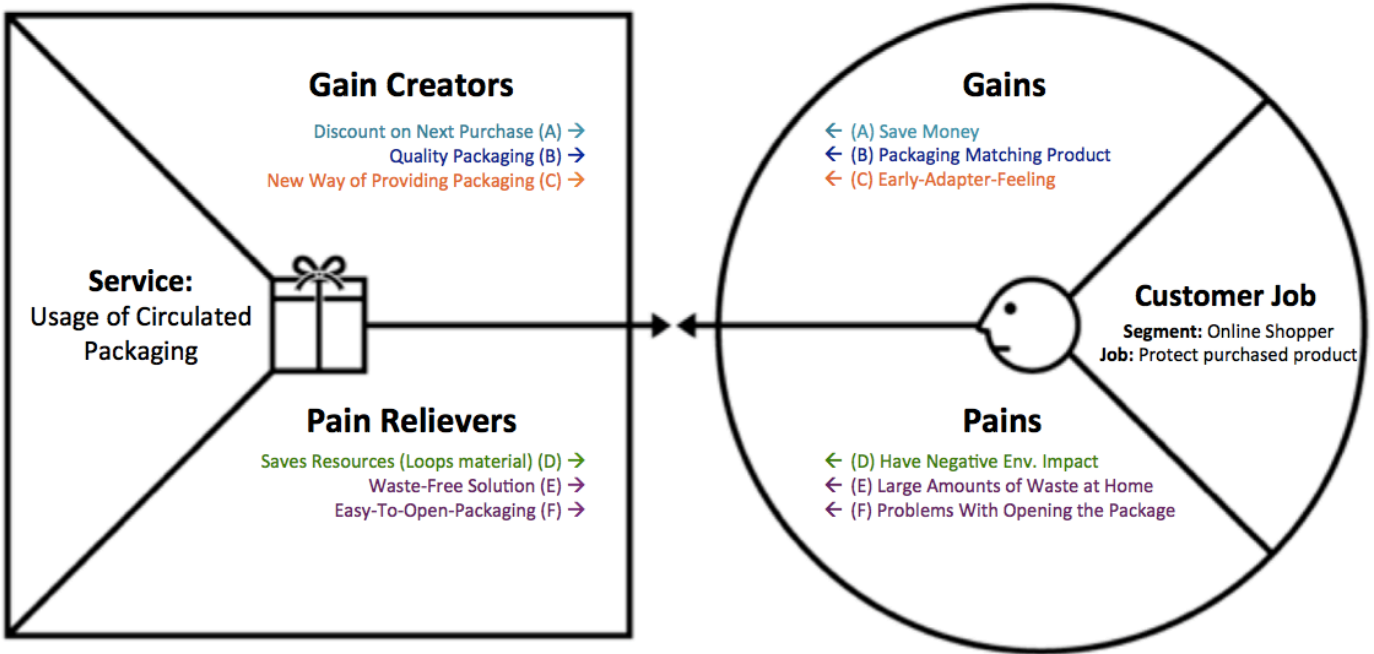
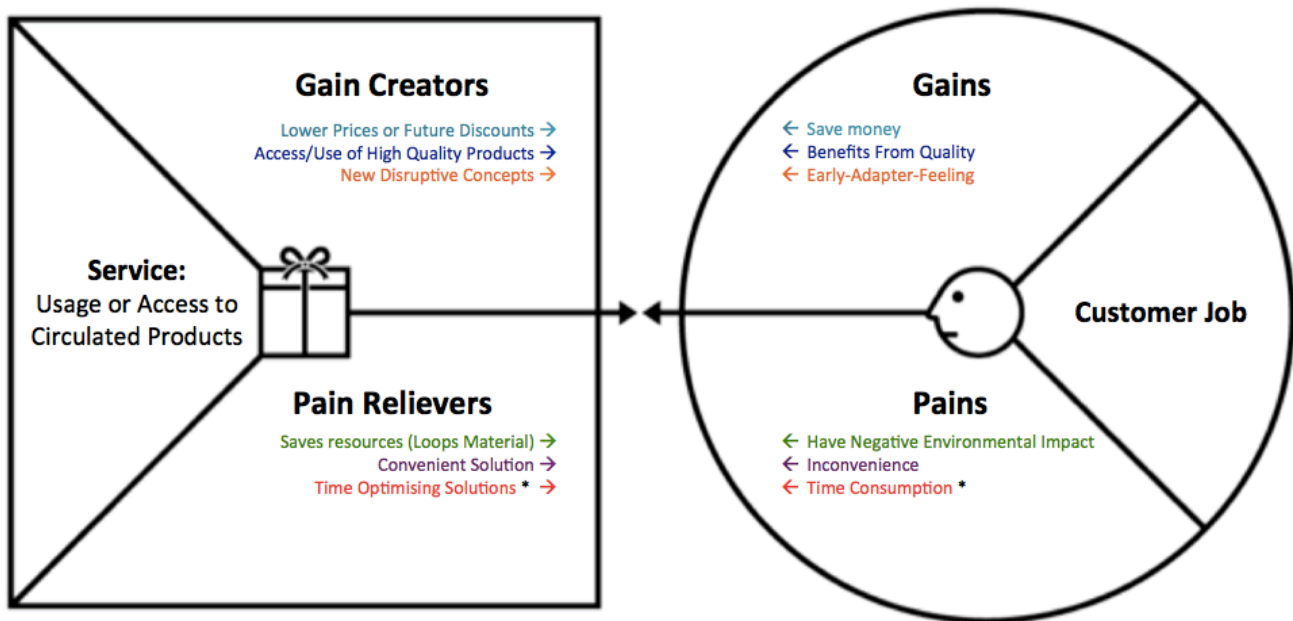


Figure 12 Colour Coded Value Proposition Canvases Applied on Repack

Source: Piirainen (2016), Repack (2016a), Repack, (2016b), Osterwalder et al. (2015) (Strategyzer.com / Strategyzer A)

6.1.2 Summarising Value Proposition Canvas

The value proposition canvas below summarises how the three studied cases are creating customer value.



Fit-categories: (1) *Money Savings* – (2) *Quality* – (3) *Early-Adapter-Feeling* – (4) *Reduced Negative Environmental Impact* (5) *Convenience* – (6) *Time Savings*

*Applies only to the studied cases providing access (Vigga & Enso)

Figure 13 Summarising Colour Coded Value Proposition Canvas

Source: Svensson (2016), Svensson (2016b), Vigga (2016), Erlandsson (2016), Enso (2016), Piirainen (2016), Repack (2016a), Repack, (2016b), Osterwalder et al. (2015) (Strategyzer.com / Strategyzer A)

6.1.3 Findings and Previous Research

Moreover the findings that circular business models could produce time savings, convenience and entail an early-adapter-feeling for the customer have not been clearly stated in previous research, even though some articles are touching upon these topics (Linder & Williander, 2015; EMF, 2013a; EMF, 2013b).

Previous research as EMF (2015), Linder and Williander (2015) and Planning (2015) show that companies with circular business models can save resources, produce cost savings and high quality products, but it is not clearly stated how those factors affects the customers. This is what makes this study unique. Hence, no research in the field of circular business models has used the value proposition canvas and presented the fits between a company with a circular business model's gain creators/pain relievers and its customer's gains/pains.

An important note though is that this study mainly comprises literature on circular business models. Literature on the related and extensively researched fields of service oriented business models, products service systems and servitization has not been comprised to the same extent. However, no research, accessible on Google scholar or on LUB-search, in the mentioned fields are using the value proposition canvas, which indicates that even those fields are missing a structured detailed description on how customer value is created.

6.2 Reflections on Methodical Limitations

There have been some methodological challenges in the research process, which may have caused shortcomings in the findings. In this section the overall quality of the research collected and analysed data will be assessed, by discussing the concepts of reliability and validity. Reliability concerns the consistency of the instruments used and validity concerns the true value of the findings (Bryman & Bell, 2011). Bryman and Bell (2011) have discussed how to apply these concepts on qualitative methods, and distinguishes between internal and external validity/reliability.

6.2.1 Limitations to Reliability

The external reliability concerns to what degree the research can be repeated and replicated. As the interviews in this study were not standardized, they may be hard to imitate. However, all the interviews were based on a semi-structure, which enhances the external reliability (Bryman & Bell, 2011).

The internal reliability refers to consistent interpretation of the findings. To ensure a reliable interpretation, the interviews were recorded and transcribed. Moreover the result and analysis was sent to the respondents in order to ensure the researchers interpretations of what they had said, had

been understood correctly (Bryman & Bell, 2011). This was also discussed during the second interview.

6.2.2 Limitations to Validity

The external validity refers to what extent the results can be generalized to other environments and situations. The external validity of this study is low since three case studies have been conducted which implies that the results cannot be generalized to a larger population. Hence, the generalizability of the study is low but could have been increased if more cases were studied and if more persons representing the same company were interviewed (Bryman & Bell, 2011). However, the existing cases of service oriented circular business models are diminutive and as mentioned in the methodology it was very time consuming and difficult to get hold of both the companies and persons who could represent them. Nevertheless, Bryman and Bell (2011) argue that one can strengthen the external validity in qualitative studies by increasing the transferability of the study by including detailed description of how the data has been conducted and analysed. So even though the external validity may be low in this case, the author tried to include a detailed description of the collection and analysis in order to increase it.

The internal validity concerns the consistency between the observation of the researcher and the theory. The internal validity for this research is considered to be high, since the research is based on the theoretical framework, the value proposition canvas. Most of the questions asked were already part of the framework, which ensures that the concepts are operationalized adequately and thereby enhances the internal validity. However, one can discuss how well the interviewed persons know their customers and how well they speak for them, especially in the case of Enso, which business is not in play yet. Ideally interviews with customers to the studied companies should have been conducted as well but would have equated a too broad research approach for this study (Bryman & Bell, 2011).

6.3 Suggestions on Further Research

First of all it would be interesting to see research looking into how customers view the offer from companies with service oriented circular business and other types of circular business models. Hence, research that could complement the findings from this research, which is focused on how

persons representing companies believe their customers are and how they view their company.

Moreover, discussions and factors brought up during the interviews that perhaps could strengthen the fits, but rather suits the business model canvas than the value proposition canvas, could be interesting to investigate further (Osterwalder et al., 2015). Hence, it would be interesting to see more detailed research on the opportunities to create more customer value in a circular economy through:

6.3.1 Revenue Streams

Larger investments in products enabled by the use of collaborative financing models and secured future revenues by dint of subscription models.

6.3.2 Key Activities

Focus on technology development in order to better relieve pains and create gains for the customers. For example, through connecting products to internet in order to collect more data and understand the customer's pains and gains better.

6.3.3 Channels

Storytelling, image, branding and to properly communicate the gain creators and pain relievers.

6.3.4 Customer Relationship

Getting to know the customers gains and pains by dint of the longer lasting relationship that service oriented circular business models entails.

7. Conclusion

The research objective of this study was to acquire a structured, in-depth understanding of how customer value can be created in service oriented circular business models. The research objective has been fulfilled by the use of the value proposition canvas and by highlighting twenty-six fits in three cases, in other words twenty-six ways the studied companies are creating customer value. Further, the identified fits in the three cases were compared and certain patterns on how customer value can be created in the studied service oriented circular business models were identified; customer value is in studied cases, in various degrees, created through:

- (1) Enabling the customer to **save money**
- (2) Enabling the customer to use **high quality** products
- (3) Entailing an “**early-adapter-feeling**” for the customer
- (4) Enabling the customer to **reduce their environmental impact**
- (5) Enabling more **convenient solutions** for the customers
- (6) Enabling the customer to **save time**

Hopefully the outlined fits and patterns can contribute to the enhancement of circular business models and the shift from a linear to a circular economy.

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Interview Questions

Warm up

- How did the idea of the business come up?

Customers

Customer Segments

- How would you describe your customers?
- Can you divide the customers into different segments, please explain?

Customer Job

- Why do you think your customers are buying your service?
- What is your service helping your customers with?

Pains

- What undesired situations do you think your customer experiences or could experience?
- What negative emotions do you think your customers experiences or could experience?
- What undesired costs do you think your customer experiences or could experience?
- What risks do you think your customers experience or could experience?
- What are the main difficulties and challenges your customer encounters?

Gains

- What are your customers segments looking for?
- What outcomes do your customer segments expect?
- What would go beyond the customer's segments expectations?

- How does your customer segments measure success/failure?
- What positive social consequences do you customers desire?
- What do you customer segments dream about?

Value Proposition

Pain relievers

- Is your service:
 - Eliminating or reducing undesired costs? If yes, why? If no, why?
 - Eliminating or reducing negative emotions? If yes, why? If no, why?
 - Eliminating or reducing undesired situations? If yes, why? If no, why?
 - Eliminating or reducing undesired risks your customers fear? If yes, why? If no, why?
 - Putting an end to difficulties and challenges your customers encounter? If yes, why? If no, why? If yes, why? If no, why?
 - Limiting or eradicate common mistakes customer make? If yes, why? If no, why?
 - Helping your customers to better sleep at night? If yes, why? If no, why?
 - Wiping out negative social consequences the customer encounters or fear? If yes, why? If no, why?

Gain Creators

- Is your service:
 - Producing outcomes your customers expects or goes beyond their expectations? If yes, why? If no, why?
 - Outperform current solutions that delight your customer? If yes, why? If no, why?
 - Create positive social consequences the customer desires? If yes, why? If no, why?
 - Enabling something customers are looking for? If yes, why? If no, why?
 - Make your customer's job or life easier? If yes, why? If no, why?
 - Produce positive outcomes matching the customer's success/fail criteria? If yes, why? If no, why?
 - Fulfilling something customers are dreaming about? If yes, why? If no, why?