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CIRCULAR ECONOMY PRACTICES USED BY ESTONIAN SME SHARING
PLATFORMS

Bachelor's Thesis

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I have written this Thesis independently. Any ideas or data taken from other authors or other sources have been fully referenced.

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(signature of the author and date)

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Introduction

Ever since the 1800-s human activity have been the main force driving different environmental problems such as climate change, greenhouse gas emissions, growing number of landfills, as well as many other (United Nations, n.d.). Due to that, environmentally friendly options, and Circular Economy (CE) has gained popularity in the recent years, especially with the new generation of consumers trying to be more sustainable in their choices (Simon-Kucher & Partners, n.d.). It is believed that researching circular economy as a concept, as well as its practices, will help to deal with climate change and many other environmental problems that our future is facing. Considering this, the thesis at hand is very topical and important during the current times.

The research aim of this thesis is to explain which Circular Economy practices the selected Estonian small and medium size enterprises (SME-s) are using. The focus will be on companies belonging into Model 4 – Sharing Platforms (Cui, 2021). According to the European Commission, small and medium size enterprises (SMEs) are considered companies, which staff headcount is below 250 and the turnover is below 50 million or balance sheet total below 43 million (European Commission, n.d.). This work will consist of Theoretical and Empirical part, which will fulfill the following research tasks:

- Explain the theoretical background and define the main terms for the concept of Circular Economy
- Give an overview and analyze previous international studies on the issues of Circular Economy
- Explain the methodology and data of the study
- Study and analyze the practices of Circular Economy in Estonia
- Analyze and explain the empirical insights from the interviews

The research gap is another important reason why the author chose this topic. There are quite many studies done about circular economy, but not so many linking it with Estonia. The one found study done in Estonia is about production companies from electrical and optical equipment, chemicals, electronics and metal industries. (TalTech , 2021) Therefore, there is a big research gap for companies in other sectors in Estonia. As only production companies have been researched beforehand, this work will focus on service companies, more specifically Sharing Platforms. This study will be most beneficial for Estonians in general as well as anyone trying to improve the situation and find ways to integrate circular

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economy practices to their business, to see how different countries use its practices and learn things from case studies.

Keywords: Circular Economy, Sharing Platforms, Service companies

1. Theoretical background of the concept of Circular Economy

With the growing environmental concerns of our 21st century, circular economy has gotten more popular and important for companies to adopt. The definitions of the term CE will be discussed thoroughly in the Chapter 1.1; however the main idea of Circular Economy is the coordination of environmental conservation and economic growth. Utilizing the simple 3Rs of reduction, reusing, and recycling, a common definition of the circular economy outlines the practical application of the concept. (Bassi & Dias, 2019) This is visually represented in Figure 1:

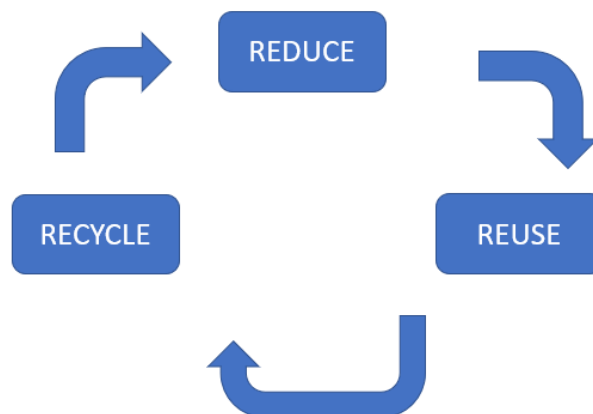


Figure 1. Circular economy 3Rs

Source: Compiled by the author

According to a study done in 2021, businesses see circular economy as a tool for achieving sustainable development, especially in the environmental sector, where emphasis is placed on the efficient use of resources (Walker A. M., et al., 2022). There are many ways that companies could adopt circular economy into their practices. Five possible ways to measure circular economy are: using renewable energy, rethinking how water is utilized to reduce consumption and maximize re-use, energy use should be reorganized to reduce consumption, trash should be reduced by recycling, reusing, or selling it to another company,

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and products and services should be redesigned to use less resources or recycled materials. (Bassi & Dias, 2019)

CE has also been described as a model of production and consumption whose guiding principles and procedures place a premium on maximizing product lifecycles and minimizing waste. CE encourages the development of more innovative, environmentally friendly, and effective replacements that enable trash to be used as an input in the production process. In CE, environmental and social goals are added to financial performance metrics, which are no longer a company's only goal. These objectives serve as the main motivating forces behind all business operations. Prioritize preserving resource value to keep the supply chain alive. (Le, Behl, & Pereira, 2022)

In this thesis, the focus is on Sharing Platforms. Below the author has brought out different Circular Economy models, which will help to determine which companies fit best to the Sharing Platform model. The models are not mutually exclusive but can rather happen simultaneously. As mentioned, Circular Economy practices can be divided into five different models, as brought out below.

Model 1: Circular inputs:

This model is about using inputs (energy, water and materials), that are either bio-based recycled, regenerative or renewable. At first this step was seen as an independent one, influencing only the acquisition, but now it is often seen as a continuous part in closing the product loop. (Cui, 2021) Circular Economy (this model) effectively uses different bio-materials and finds different ways to use them. (Ellen Macarthur Foundation, n.d.)

Model 2: Product Use Extension

Model 2 is about making the products life longer by repairing or re-manufacturing it, which is often used in electronics or other equipment with higher value (Cui, 2021). It has also called Product Life Extension by an EU REDUCES Project, defining it as “Products are used according to their original purpose for as long as possible or repaired and refurbished for multiple reuses, thus reducing the need for purchasing and manufacturing new products.” (REDUCES, Interreg Europe, 2020).

Model 3: Product as a Service

Referred to also as “servitization”, this model is about a shift to providing services instead of selling a product. The main changes needed are mindset (from a linear production to full cycle service model), design (making the product stronger, easily repairable and recyclable)

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and ownership (companies' ownership of the product after it stops working gives them the responsibility to dispose of it). (Cui, 2021)

Because the products themselves are used to their full potential under this model, the resources used to create them are more effectively utilized, and as result, there is less of a need for the new items, which lessens our reliance on the planet's finite resources (Veolia, 2020).

Model 4: Sharing Platform

This has been more used in the late years in many domains, but mostly mobility, holiday and fashion. Some examples of Model 4 are AirBnB, Uber, etc. The development and growth of digital technology has allowed the sharing platforms to become large-scale and safe and allows to take advantage of some often-under-utilized resources. (Cui, 2021)

Model 5: Resource Recovery

The last model refers to when the products reach their end, it is critical to collect all useful materials and resources to be used again in other roles (Cui, 2021). Recognizing that resource recovery is only the first step in creating a circular economy is crucial. If we must stop using virgin materials, we must then link closed-loop recycling to resource recovery (World Economic Forum, 2023).

Due to the term Circular Economy having many different definitions, it can also be confusing what exactly has been meant by it (Kirchherr, Reike, & Hekkert, 2017). Therefore, it is very important to develop a better understanding of the definition of circular economy, which the next chapter of this work will focus on.

1.1 Definitions and overview of concept of Circular Economy

In the previous chapter, there were brought out several different ways to view and for companies to adopt Circular Economy. Also, since the definition of Circular Economy differs to a great extent in different areas, it is necessary to clarify the terms and make it generally understandable. Therefore, to analyze it further, below is a compiled table of different definitions of Circular Economy.

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Table 1

Definitions of Circular Economy

Definition	Focus of definition	Source
A circular economy is an industrial system that could be seen as a system that integrates the economy with ecological consideration design and proposing a completely different way of resource utilization.	Industrial system integrating economy with ecological considerations aiming for resource utilization.	(Awan, Kraslawski, & Huiskonen, 2020)
A circular economy is one that is restorative and regenerative by design and aims to keep products, components, and materials at their highest utility and value at all times, distinguishing between technical and biological cycles.	Aims to keep products, components, and materials at their highest utility and value at all times.	(Kirchherr, Reike, & Hekkert, 2017)
A circular economy aims to maintain the value of products, materials and resources for as long as possible by returning them into the product cycle at the end of their use, while minimizing the generation of waste.	Aims to maintain the value of products, materials and resources while minimizing the generation of waste.	(Eurostat, n.d.)
The circular economy is a new and inclusive economic paradigm that aims to minimize pollution and waste, extend product lifecycles, and enable broad sharing of physical and natural assets. It strives for a competitive economy that creates green and decent jobs and keeps resource use within planetary boundaries.	Aims to minimize pollution and waste, extend product lifecycles, and enable broad sharing of physical and natural assets. It strives for a competitive economy that creates green and decent jobs and keeps resource use within planetary boundaries.	(United Nations Economic Commission for Europe, n.d.)
The circular economy is a redesign of this future, where industrial systems are restorative and regenerative by intention.	Industrial systems are restorative and regenerative by intention.	(World Bank Group, 2022)

Source: Compiled by the author

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Comparing all of the beforementioned definition, the main similarity within these is that all of these seem to define circular economy at least partly as maximizing utility. Awan, Kraslawski, & Huiskonen (2020) define this as „proposing a completely different way of resource utilization”. Kirchherr, Reike, & Hekkert (2017) define this as “aims to keep products, components, and materials at their highest utility and value at all times”. The World Bank (2022) defines this as “industrial systems are restorative and regenerative by intention”. However the latter is worded differently, all definitions focus on the same thing: “maximizing utility” in some way.

One difference that can be brought out is whether the authors connect the circular economy definition somehow with the economy. Awan, Kraslawski, & Huiskonen (2020) do this by defining circular economy as a “system that integrates the economy with ecological consideration”. United Nations Economic Commission for Europe (n.d.) does this by defining it as a “new and inclusive economic paradigm that aims to minimize pollution and waste”. From both definitions we can see that economy has been brought into the definition in at least a part. The other authors in this table however have not used economy within their circular economy definitions and have focused more on other aspects of it.

Another big difference is whether there have been brought out different ecological considerations such as waste minimization in their circular economy definitions. Arwan, Kraslawski, and Huiskonen (2020) indeed do this with their following definition of circular economy, saying it “integrates the economy with ecological consideration design”. Eurostat (n.d.) is more specific in their definition and brings out “while minimizing the generation of waste”. Similarly, to the latter, United Nations Economic Commission for Europe (n.d.) is specific in their definition, saying that circular economy “aims to minimize pollution and waste,”. The World Bank (2022) does mention the words “restorative and regenerative” in their definition, however this falls short to fit into these criteria, so all the other authors fail to mention any ecological considerations in their definition.

With the terms of CE clarified, it is best to move on to the previous international studies about Circular Economy.

2.1 Overview of previous international studies about Circular Economy

To research Circular Economy Practices by Estonian SME Sharing Platforms, it is important to first have an overview and explain which studies have been done beforehand on

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the topic. To have a clear overview of all the literature used in this paper, below is a compiled table with the literature review, which includes the authors, name of their work, aim of the research, methods used and the results.

Table 2

Literature review (shortened version)

Author(s)	Name of the work	Aim of the work	Method(s)	Results
(Kalmykova, Sadagopan, & Rosado, 2018)	Circular economy – From review of theories and practices to development of implementation tools	Provide a summary of the CE concept and have a clearer description of CE, as well as give tools for its implementation.	Qualitative: Literature review of 118 documents	Development of the CE strategies database and the CE implementation database.
(Bassi & Dias, 2019)	The use of circular economy practices in SMEs across the EU	Analyze the business characteristics that may have an impact on CE practices across all SMEs in the EU.	Quantitative: using secondary data (Flash Eurobarometer 441)	Direct association between the size of the firm, total turnover, investment into R&D and implementation of CE; EU countries classified into four homogeneous groups
(Schulz, Hjaltadóttir, & Hild, 2019)	Practising circles: Studying institutional change and circular economy practices	Recombine conceptual perspectives for understanding new CE practices, and b) provide methods for operationalizing and evaluating aspects about ongoing CE efforts.	Observation; Network analysis; Content and discourse analysis; Material and energy flow analysis; Management and infrastructure analysis	Reveal collective practices; Patterns of practice actor networks; discourse patterns and groupings; LCA and material flows; Barriers and enablers

Note: Shortened version. Full version included in Appendix 1

Source: Compiled by the author

Table 2 includes all the cited works, except when a work has been used only for a secondary citation when the primary work was not available, as it would not be relevant in

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that case. Another thing not included in Table 2 are any reports or webpages cited, as these neither would be relevant in the context of this table. The shortened version of the table below includes only the works mentioned in this chapter, with the purpose of making this chapter clearer and easier to understand. In the following paragraphs, the author will delve into analyzing some (not all) of the works brought out in the previously mentioned table.

The first analyzed study “Circular economy – from review of theories and practices to development of implementation tools” talks extensively about different practices of circular economy as well as where it has started. It describes the early adoption of circular economy by China and its top-down approach (initiated by the government). This study mentions that other cases might not be completely replicable, as issues in developed and developing countries can be different, bringing examples of how China uses different methods than Sweden for recycling and waste flow. It brings out, that different studies and authors differ in their approaches of how “tight” the circularity loop must be (both geographically and in terms of activity). (Kalmykova, Sadagopan, & Rosado, 2018)

This will be relevant and beneficial to the Thesis about Circular Economy Practices, specifically the part where the paper mentioned that not all the cases are replicable. This is because even though the companies used in this study all belong into a Sharing Platform Circular Economy model, they can be quite different in their nature, business operations and goal of the business.

In the study there was a compiled a table of Circular Economy Strategies, dividing the strategies by

1. Materials sourcing
2. Design
3. Manufacturing
4. Distribution and sales
5. Consumption and use
6. Collection and disposal
7. Recycling and recovery
8. Remanufacture
9. Circular Inputs

The study also discusses different implementation processes based on sectors, products, materials, or substances as well as shares different levels of implementation

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(macro-scale, meso-scale, and micro-scale). It synthesizes existing main ideas about circular economy, identifying similarities and differences. (Kalmykova, Sadagopan, & Rosado, 2018)

Because the author had 45 strategies and over 100 implementation cases in the circular economy strategies database, the conducted study is extremely useful, as it gives a very wide overview of what has been researched before and which applications are already widely used. This study was chosen, as it extensively covers different practices of circular economy by reviewing 118 documents in total. The author believes it is very important to start off with some clarity on the concept of Circular Economy, which is why this was chosen as the first paper to analyze. It will be useful for identifying and analyzing different circular economy practices in Estonia further on in this study.

The second study synthesized is called “The use of circular economy practices in SMEs across the EU”. This study was chosen, as Small and Medium Enterprises are representing around 90% of all businesses worldwide, therefore learning about practices and problems of circular economy in SME-s seems extremely important (The World Bank, n.d.). This research studied specific circular economy activities such as water consumption, energy consumption and using recycled materials. According to descriptive statistics they used in their study, despite the adoption of circular economy practices by businesses in all 28 European nations, there are differences between the nations due to the characteristics of the businesses, such as size, age, turnover, and type of activity, as well as between the nations themselves. They found out that larger firms are significantly more likely to use circular economy policies as well as that there is a direct association between investment into research and development and circular economy activities in companies. They brought out in the conclusion, that even though European Union has a growing number of policies regarding environment, not a lot of companies have adopted these, especially not a lot of SME-s. The most widely used circular economy activity used by SME-s was waste minimization or recycling, energy usage and design of products using less material. (Bassi & Dias, 2019)

The work by Bassi and Dias is highly relevant, as it is researching SMEs in a similar manner as this Thesis at hand. The Thesis at hand tries to focus on and find patterns on the association between the firm’s size and how many Circular Economy Practices the company uses, which has also been researched by the abovementioned work by Bassi and Dias. Bassi and Dias concluded that bigger companies tend to use more CE practices, therefore, it would be interesting to test this theory in the Thesis at hand. It would also be interesting to study whether the most common CE Practices found by Bassi and Dias (waste minimization or

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recycling, energy usage and design of products using less material) are dominant in this Thesis as well.

Another relevant study was called “Practicing circles: Studying institutional change and circular economy practices”. The authors of this work wrote that European Union initiatives are now one of the most developed ones in the world. Some of the policies that the EU is currently working on are tax systems, financing circular economy practices and public procurements. However circular economy practices in businesses are still not at its high, as it can be very difficult for companies to change their business models to take account circular economy practices and find innovative ways to provide value to customers. (Schulz, Hjaltadóttir, & Hild, 2019)

Comparing the results of the three analyzed studies, the first and second study are more similar in a way that both of these ends up with creating a certain database or list of their findings. The first work compiled a database of CE strategies and implementations, and the second work classifies countries into different homogeneous groups. The results from the third study, however, were a bit different. The authors did develop a grouping but not for the purpose of itself or for creating a database, but rather for the purpose of developing a framework with this.

This, however, is logical, as the aims of the works were also more similar for the first and second study and more different with the third study. The first two studies were trying to just summarize, analyze some existing data and information, finding similarities, correlation, etc. Whereas the aim of the third study was to combine previous concepts in order to develop and provide new methods for operationalizing. This is believed to help the author analyze and find the best methods to use for the second part of their work.

Another reason for choosing these three works to analyze in this chapter, is because these works together cover several different methods for work. The first authors used qualitative methods, reviewing different theories, policies, case studies and documents. The authors of the second work used quantitative method, using secondary data from Eurobarometer. And the authors of the third research used observations, network analysis, management- and infrastructure analysis among other methods. The author believes that this thesis will benefit from analyzing works in where different methods of research have been used. This helps the author to make sure that their thesis is not too one-sided and covers a wide array of methods and results. This will also help the author in chapter 2.1 Methodology

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and data of the empirical part of this thesis, where they will dwell deeper into the methods that will be used in the empirical part when further developing this work.

2. Circular Economy Practices in Estonia

Implementation of circular economy in Estonia is supported by the Center for Environmental Investment under the Circular Economy Program. The objectives of circular economy program are to use resources more efficiently, adopt circular economy principles, avoid generating waste and emissions, reduce the environmental impact of activities, and reduce the economic impact of natural resources. In conclusion it is to reduce the environmental impact caused by the exploration, extraction, and use of natural resources. (Keskkonnaministeerium, 2021)

There are six main aims or areas of development regarding Circular Economy in Estonia. The six areas are: (Keskkonnaportaal, n.d.)

- A. Responsible use of resources and waste minimization.
- B. The models that Estonian businesses use are sustainable and CE-oriented.
- C. Cooperation between relevant sectors and professionals for the CE implementation.
- D. Digital solutions to support the use of CE.
- E. Well-coordinated legal and economic environment to support CE.
- F. Well-rooted sustainable and environmentally friendly behavior.

Every year, the Ministry of the Environment recognizes the most successful companies in the field of environmental management in the "Environmentally Friendly Company of the Year" contest. The goal is to identify green companies that have taken actions that have a positive impact on the environment and encourage other companies to use similar green solutions. (Keskkonnaministeerium, 2021)

In addition, the Ministry of the Environment is implementing a measure called "Business Resource Efficiency" from funds of the EU budget period 2014-2020, with the aim of increasing the resource productivity of companies through the introduction of innovative solutions. This measure consists of four activities: Awareness raising, training of professionals, doing audits/ resource utilization analysis and investments. (Keskkonnaministeerium, 2021)

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The 2021 study about CE practices enablers and barriers in Estonia looks into different sectors: computers, electronics and optical equipment industry; chemicals and chemical industry (except for plastics); electrical equipment industry and metal industry. The findings of CE practices of this study have been brought out in the below table. (TalTech , 2021)

Table 3

TalTech study about CE Practices

	Electrical, optical equipment	Chemicals	Electronics	Metal Industry
Ensuring product durability	X		X	X
Manufacturing according to orders	X			
Ensuring opportunities for product improvement	X			
Info regarding product repair	X		X	
Personalization of packages	X		X	
Ensuring product safety and extending product life	X			
Sustainability as a business principle		X		X
Replacing chemicals with less hazardous ones		X		
Maximizing product efficiency		X		
Minimizing the use of pollutants		X		
Developing products with few harmful ingredients		X		
Using nearby suppliers and materials		X		X
Recycling of packaging		X		
Input optimization and waste reduction			X	X
Waste sorting and processing			X	
Product remanufacturing assistance				X
Reverse-cycle principle for design components				X
Sustainable technology for material consumption and disposal				X

Note: Table is adapted for the ease of read.

Source: Compiled by the author based on (TalTech , 2021)

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In conclusion of this chapter, there are several initiatives by the Estonian government for the companies using Circular Economy practices. As far as found, TalTech study was the only study done about CE practices in Estonia, however it considered only production companies, which means that all other sectors are still not covered and there lies a research gap. Therefore, going forward this is what the author will focus on.

2.2 Methodology and data of the empirical part

In the previous chapter, some prior studies on Circular Economy were analyzed based on a table compiled. Many different methods of research were considered, so that this paper would benefit from the wide array of methods used. Based on the analyzed works, and the fact that not many studies of CE practices (and no studies on service companies) have been done in Estonia before, the author believes that qualitative methods would be best for this work, as there is not enough theory yet to test it with quantitative research.

The method used was interviews in Estonian. The aim was to do as many interviews as needed, to reach the saturation point, which was reached with 4 online interviews. The author also conducted a test interview before going on to the real interviews, and based on the feedback from the test interview, the interview questions were made more open-ended and some of the questions were dropped. The interviews were conducted in Estonian, lasted between 30-50 minutes and are around 141 minutes total in recordings. The interviews took over 6 hours to write a word-for-word transcription of the interviews and in total there were 33 pages of transcription.

The main ideas that came out from the theoretical part and therefore were asked in the interviews, in order to compare the findings with the theory, were the following:

- CE Definition
- CE Practices
- Market demand for products/services of the companies using CE practices/models.

The author also aimed to research the link between the company's size and how many Circular Economy practices they use (asking about the firm's number of employees, firms' size, income and a percentage of income used for CE practices) with the hope of finding similarities and patterns. However, there were no results that were generalizable, therefore, this is not talked about extensively in the empirical part.

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Table 4

Shortened version of the table of the interview questions

Theme	Interview Question
	Could you explain in your own words what your company is doing?
N/a	How many employees does your company currently have?
N/a	What was your company's total turnover in 2021?
Theme 1: CE Definition	How would you describe Circular Economy? - What are the most important components of CE?
N/a	What percentage of your company's turnover in 2021 was invested in CE related activities?
Theme 2: CE Practices	Explain, how your company started using CE practices – was it funded on CE model or did you start with the practices later on? Which were the first steps implementing CE?
Theme 2: CE Practices	Which CE practices do you currently use in your company? - Have these changed within the years?
Theme 2: CE Practices	Which of the beforementioned CE practices bring the most benefit (efficiency, revenue, etc.) to your company in your opinion?
Theme 3: Market demand for companies using CE practices	Is there a market demand for the products of companies using CE practices?

Note: Extended version included in Appendix B.

Source: Compiled by the author

Considering the previously mentioned and the above shortened table of the Interview Questions, the 9 interview questions have been divided into the beforementioned themes. The first theme will focus on the CE definition. The second theme is about Circular Economy Practices. And the third theme will focus on the market demand for companies using CE practices. The full table of the interview questions (both in English and Estonian) are included in the appendixes.

For the data, the author chose several Estonian SME-s that use sharing platforms as their CE Models. The reason of specializing in Small and Medium Size Enterprises (SMEs), is because as in the chapter 1.2 Overview of previous international studies, it is brought out

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that 90% of EU companies are SME-s, therefore researching SME-s seems like the biggest impact for Circular Economy studies.

The 4 chosen companies, who all use Sharing platforms as their CE Model were Beast, *Materjalivoog*, Ringo and *Sõbralt Sõbrale*.

Beast is a business-to-consumer sharing platform for renting Tesla electric cars for people, providing a premium experience while renting an electric vehicle. The 2022 income for Beast was around 850 000 euros. *Materjalivoog* is a business-to-business sharing platform for textile waste, putting together companies that have leftover textile waste and companies who could use it for their production. 2022 income for *Materjalivoog* was around 13 000 euros. Ringo is a business-to-consumer and business-to-business sharing platform for reusable packaging, aiming to fight against one time packaging. Income for 2022 was around 200 000 euros for Ringo. And *Sõbralt Sõbrale* is a business-to-consumer chain of second-hand stores, having 17 stores in Estonia. The 2022 income for *Sõbralt sõbrale* was around 3 300 000 euros.

All of the beforementioned companies use a Sharing Platform in their business model, however they are still quite different. For example, *Materjalivoog* is more than 200 times smaller than *Sõbralt Sõbrale*. Also, the business operations of an electric vehicle sharing business (Beast) are quite different from a second-hand-store chain (*Sõbralt Sõbrale*), even though they use the same business model (Sharing Platform).

Next chapter will discuss the results of the interviews and the empirical part in general.

2.3 Empirical insights from the interviews

This chapter will focus on the findings from the interviews. Based on the themes that were talked about in the previous chapter, there has been compiled a list of reoccurring codes from the interviews for each theme. Then the codes were grouped together (based on similarities) into categories. The biggest theme ended up having more codes and more categories (for example the CE Practices Theme had five categories) as this was also the main aim of the work and more questions were asked about this. And the smaller themes ended up having less codes and categories (for example CE and the Market Theme had two categories) as less questions were asked about these themes. After bringing out the full table of the the codes and categories (Table 4), it will be written more about each category and code separately with bringing out the relevant part from the table for ease of reference.

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Table 4

Coding table from the interviews

Theme	Code	Category
CE definition	Conscious consumption Using less No one time use Everything should be used Sharing	Consumption
	Finding ways to use waste Added value to used things Input to a next stage/product	Step/stage in the circle
CE practices	Reducing the footprint Environmentally friendly travel training/education about CE	Team
	Recycling damaged/broken products Waste management (sorting) Making waste valuable (by reusing/selling/recycling) Sharing your waste with other benefactors (schools/animal sanctuaries, etc.) Optimizing waste expenses (by giving away/reusing/recycling) Using recycled materials	Waste
	Package-free consumption Reusing packaging	Packaging
	Sharing platform Reducing one-time consumers/expenses Extremely user-friendly product (to get people to choose CE) Using used products for inputs (buying) Using used products for outputs (selling)	Platform
	Automatization and optimization Using fewer resources Innovating to find new outputs	Strategic operations
CE and the market	The market is getting more knowledgeable/ready Popular sharing platforms like Bolt, Wolt, etc.	Pos. market perceptions
	In the past market didn't know what is CE Market is not ready/CE is not a priority Waste management is not at the level needed	Neg. market perceptions

Note: The table has been adapted for ease of reading

Source: Compiled by the author

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Below it will be focused on each category and code separately with bringing out the relevant part from the table for ease of reference.

Table 4

Part of the coding table from the interviews

Theme	Code	Category
CE definition	Conscious consumption	Consumption
	Using less	
	No one time use	
	Everything should be used	
	Sharing	

Note: Full table included above

Source: Compiled by the author

For the first theme (CE Definitions), the codes were divided into two categories: consumption and step/stage in the circle. The first category was about how the interviewees' thought CE is defined by which consumption habits and covered the following codes: conscious consumption, using less, no one-time use, everything should be used and sharing. All the codes are quite self-explanatory and just emphasize thinking first and making strategic (and only necessary) purchases, but rather reusing things for as long as possible and not upgrading every time a new model is out. A quote from the interview by Kaarel from Ringo emphasizes this with the following quote: "Everything is used from the start to the end. If something becomes a residue, then there are some outputs/outlets found to use this as well." (all quotes are directly translated from Estonian). Karmen from Beast said the same in a shorter way: "All parts are utilized."

Table 4

Part of the coding table from the interviews

Theme	Code	Category
CE definition	Finding ways to use waste	Step/stage in the circle
	Added value to used things	
	Input to a next stage/product	

Note: Full table included above

Source: Compiled by the author

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The second category from the CE Definitions theme was more about how the interviewees defined CE and which of the codes can be part of a circular economy step. So, it was less about what one can do as an individual (as the first category) and it was more about which steps or CE practices a company can adopt. The second theme covered the following codes: finding ways to use waste, adding value to used things, and input to the next stage or product. An example of finding ways to use waste could be donating/selling production leftovers instead of throwing these away. Added value to used things is about finding beneficiaries to things, that have been used and not needed by the initial owner but are still working and could be used some more. Second-hand stores are a good example of this. And using everything as input to the next stage or product is basically recognizing that some production leftovers (not fit for the main production) could be used in the production of something else. One example of this from the interviews is a quote by Henri from *Sõbralt Sõbrale*, where he explains where they get their products from secondhand stores in Sweden: “So they are recycling shops themselves and they send their things left over from the sales cycle, which in return becomes our input again.”.

Table 4

Part of the coding table from the interviews

Theme	Code	Category
CE practices	Reducing the footprint Environmentally friendly travel training/education about CE	Team

Note: Full table included above

Source: Compiled by the author

The second and largest theme was Circular Economy Practices, and the findings were divided into five categories: Team; Waste; Packaging; Platform and Strategic operations. The first category, Team, had three codes: Reducing the footprint; environmentally friendly travel, and training/education about CE. Reducing the footprint referred to actually knowing the footprint of your product/travel/event and taking steps to reduce it. This could be done by using green energy, planting trees, or some other way. Environmentally friendly travel referred to choosing not to travel by plane when possible and encouraging people to not travel in a car alone. The last code, training/educating about CE was about making the team

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and other people aware of CE practices as a means to reducing your footprint and making more environmentally friendlier choices. One example brought out from the interviews is a quote by Karmen from Beast, where she talks about reducing the footprint of the team: “we cooperate with one company called Ecology that basically calculates the footprint of your employees and plant trees and also then supports large organizations and projects around the world with the contributions received from different companies.”.

Table 4

Part of the coding table from the interviews

Theme	Code	Category
CE practices	Recycling damaged/broken products Waste management (sorting) Making waste valuable (by reusing/selling/recycling) Sharing your waste with other benefactors (schools/animal sanctuaries, etc.) Optimizing waste expenses (by giving away/reusing/recycling) Using recycled materials	Waste

Note: Full table included above

Source: Compiled by the author

The second category of CE Practices was Waste. The codes appearing there were recycling damaged/broken products; using recycled materials; waste management; making waste valuable; sharing your waste and optimizing your waste expenses. The main repeating code for this was about finding ways to use damaged goods that would otherwise be seen as trash (for example recycling these into new products). Using recycled materials is one way to benefit from broken items or waste. If this would not be possible, then sharing (by selling, or just giving away) your waste to other benefactors, for whom this is still usable. For example, everything that was left over from a second-hand store they give away or sell to some other second-hand store, giving away your fabric leftovers to animal sanctuaries, schools (for crafts), or something similar. If even this would not be possible, then just sort your waste correctly, so it could be used in the most beneficial way and would not just go to landfills (wood furniture for heating, bio waste for energy, etc.). Example of this can be brought by Kaarel from Ringo, who speaks in the interview of their waste management/sorting: “We correctly and concretely sort paper, cardboard, mixed waste, bio and everything else. “.

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Table 4

Part of the coding table from the interviews

Theme	Code	Category
CE practices	Package-free consumption Reusing packaging	Packaging

Note: Full table included above

Source: Compiled by the author

The third category of CE Practices was Packaging. The codes in this category included only two codes: package-free consumption, and reusing packaging. The first code referred to choosing package-free consumption whenever possible (for example, buying sweets to the office that are not pre-packaged or not buying complementary sweets to clients if this means extra packaging). Reusing packaging is, for example, the re-use of utensils, trash bags, or other similar items where and whenever possible. Example of this is how Karmen from Beast said: “we will not buy packaged sweets into the office, just because there are also options without packaging.” and what Kaarel from Ringo said about re-using packaging: “We actually won’t throw away, we re-use even trash bags again. “

Table 4

Part of the coding table from the interviews

Theme	Code	Category
CE practices	Sharing platform Reducing one-time consumers/expenses Extremely user-friendly product (to get people to choose CE) Using used products for inputs (buying) Using used products for outputs (selling)	Platform

Note: Full table included above

Source: Compiled by the author

Category “Platform” from CE Practices theme is generally just things about the day-to-day functioning of the sharing platform itself. Codes in this category are sharing platform; reducing one-time consumers/expenses; extremely user-friendly products; using used products for inputs and using used products for outputs. The first two codes are about the

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purpose of the sharing platform, which aims to reduce one-time consumers and, therefore also, expenses. It does that by promoting renting, reusing, and buying used products, for example. The code “extremely user-friendly product” came out from several interviews, as the interviewees believed, that in order for people to make a jump from linear consumption to a circular economy (which itself is an inconvenience), the products and services have to be extremely easy to use. The last two codes are mostly about re-using products (both buying for own company and selling when not using anymore) and an example of these is second-hand store Sõbralt Sõbrale, which doesn’t only sell used products but also buys its products from other second-hand stores, which couldn’t sell these anymore. This means the items on sale are not second-hand, but rather third-hand, fourth-hand, and so on. Some of the examples of the extremely user-friendly product in order to get people to choose CE business as an alternative is for example Kaarel’s (from Ringo) answer to this: “As we saw right from the beginning that we cannot easily reach masses with this, we focused on making the use of this service extremely convenient.” and an answer from Karmen (from Beast): “With this we try to make it so so convenient for the consumer.”.

Table 4

Part of the coding table from the interviews

Theme	Code	Category
CE practices	Automatization and optimization Using fewer resources Innovating to find new outputs	Strategic operations

Note: Full table included above

Source: Compiled by the author

The last category of CE Practices theme is called Strategic Operations and covers codes from the interviews about strategic choices for the company and CE. It includes automatization and optimization, innovating to find new outputs, using fewer resources, and using recycled plastic. Automatization and optimization refer to finding better and more efficient ways to to business, therefore cutting costs and using fewer resources. Innovation helps to make CE possible in places, where it was not before (for example, Ringo coming up with the first coffee machine, that uses reusable cups). Some examples of optimizing automatizations of their product are from Karmen from Beast: “It has gotten much better,

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more automatic and more optimized.” As well as from Kaarel from Ringo: “When we pick up or drop off our packages from the boxes around the city, the road of the car has been optimized to the maximum. “.

Table 4

Part of the coding table from the interviews

Theme	Code	Category
CE and the market	The market is getting more knowledgeable/ready Popular sharing platforms like Bolt, Wolt, etc.	Pos. market perceptions
	In the past market didn't know what is CE Market is not ready/CE is not a priority Waste management is not at the level needed	Neg. market perceptions

Note: Full table included above

Source: Compiled by the author

In the last theme (CE and the market), the codes that came out from the interviews were divided into two categories: positive market perceptions and negative market perceptions. Positive ones were about the market getting more knowledgeable and ready (especially with the new generations) and wanting to adopt CE practices, which can already be seen by different sharing platforms such as Bolt and Wolt. Karmen from Beast said this with: “I believe that times are changing and the demand is starting to grow. Especially if we take into account the young people at the moment who are under 30, so Gen Z, they are from 20-22 and they are usually very smart and sensitive about how companies behave and what they do.”

Negative market perceptions, however, emphasized the opposite - that in the past, the market didn't even know what is CE and it was a very niche topic. Now people know more, however, are not ready and CE is definitely not a priority for an average person, who still wants to get things fast and cheap. This was emphasized by Mayri from *Materjalivoog*: “The market does not want Circular Economy. The market wants to have cheap labor, cheap raw materials and cheap products.” It was also brought out that waste management is not at a level where it needs to be, as Estonians either do not sort their garbage or do it wrongly.

The findings of this Thesis were also compared to the studies cited in the theoretical part. The 3R concept: Reduce, reuse, recycle (Bassi & Dias, 2019) that was mentioned in the

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beginning of the thesis, was prevalent in all the companies researched. This is partly as reducing consumption and reusing is written into their business model (as they are sharing platforms) and most of them also recycle where possible. When comparing the findings of the thesis to the CE definitions from chapter 1.1, it also seems that based on the interviews, all companies fit all the definitions.

In the theoretical part, also a study about SME-s using CE Practices was brought out, which states that the most common practices were waste minimization or recycling, energy usage and design of products using less material (Bassi & Dias, 2019). It was interesting to see, that all of those practices were present also in the interviewed companies.

All in all, comparing the results of this thesis to the results done by TalTech (2021), it seems that Estonian production companies and Sharing Platforms indeed have some overlap in their Circular Economy practices. Some of the practices that reoccurred in both are: maximizing product efficiency, recycling of packages, input optimization and waste reduction and waste sorting and processing. The codes from the thesis were overlapping mostly with Chemicals and Electronics industries and did not overlap with Electrical, optical equipment and Metal industries.

Conclusion

In this work it was researched which Circular Economy practices Estonian SME sharing platforms are using. In the theoretical part the author explained the theoretical background of the concept, analyzed the main terms and definitions for Circular Economy as well as gave an overview of previous international studies on the topic.

Based on the findings from the theory, the main themes researched in the interviews were: CE definition, CE practices and market demand for CE companies. There were 4 interviews conducted in addition to a test interview. The interviews lasted between 30-50 minutes on average and 141 minutes total. The word-for-word transcriptions of the interviews were 33 pages long in total. The author analyzed and coded the interviews and based on that divided the codes into categories and compiled a table of the findings. All categories and codes were further explained with examples brought.

From Theme 1 (CE Definitions), the two categories found were consumption (codes more generally about reducing consumption) and step/stage in the circle (codes about steps that are part of the circular business model). For theme 2 (CE Practices), there were five categories found: team, waste, packaging, platform and strategic operations. The first

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category (Team) was about reducing the teams footprint and educating them. The second category (Waste) was more generally about waste management. The third category (Packaging) was about reusing packaging or shopping package-free. The fourth category (Platform) was about the day-to-day works of the platform. And the last category (Strategic operations) was more about innovation, optimization and making strategic decisions like this in their businesses.

The findings of this thesis were also compared to the findings of other works cited. For example, a study about production companies done by TalTech (2021), in which case the research Sharing Platforms have the biggest overlap of practices with the Chemicals and Electronics industries. The overlapping practices include: maximizing product efficiency, recycling of packages, input optimization and waste reduction and waste sorting and processing.

The work would have benefited from finding more similar companies (for example, only ride-sharing companies), as currently the companies were quite different in their size, operations and other ways (for example Beast as a ride-sharing company was very different from *Materjalivoog* as a textile-waste company). However, for this Thesis, there were not many similar companies to choose from in Estonia (in a larger market there might be more). Other similar organizations were either nonprofit organizations or were not an SME anymore, so that would have been outside of the scope of this Thesis.

Suggestions for further research would be service companies other than those using a sharing platform. In addition, it is recommended to research other organizations (for example corporations or non-profit organizations) using Circular Economy practices.

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List of References

1. Awan, U., Kraslawski, A., & Huiskonen, J. (2020). *Progress from Blue to the Green World: Multilevel Governance for Pollution*. Springer, Cham.
2. Bassi, F., & Dias, J. G. (2019). The use of circular economy practices in SMEs across the EU. *Resources, Conservation and Recycling volume 146*, pp. 523-533.
3. Circle Economy. (n.d.). *circle-economy.com*. Retrieved from <https://www.circle-economy.com/news/the-top-5-questions-to-address-when-implementing-circular-economy-business-strategies>
4. Cui, M. (2021). Key Concepts and Terminology. In *An Introduction to Circular Economy* (pp. 17-34). Springer Singapore.
5. Ellen Macarthur Foundation. (n.d.). *ellenmacarthurfoundation.org*. Retrieved from <https://ellenmacarthurfoundation.org/the-circular-economy-in-detail-deep-dive>
6. European Commission Directorate-General for Communication. (2016, June 03). *Flash Eurobarometer 441: European SMEs and the Circular Economy*. Retrieved from [data.europa.eu: https://data.europa.eu/data/datasets/s2110_441_eng?locale=en](https://data.europa.eu/data/datasets/s2110_441_eng?locale=en)
7. European Commission. (n.d.). Retrieved from https://single-market-economy.ec.europa.eu/smes/sme-definition_en
8. Eurostat. (n.d.). *ec.europa.eu*. Retrieved from <https://ec.europa.eu/eurostat/web/circular-economy>
9. Giorgi, S., Lavagna, M., Wang, K., Osmani, M., Liu, G., & Campioli, A. (2022). Drivers and barriers towards circular economy in the building sector: Stakeholder interviews and analysis of five European countries policies and practices. *Journal of Cleaner Production, vol 336*.
10. Kalmykova, Y., Sadagopan, M., & Rosado, L. (2018). Circular economy – From review of theories and practices to development of implementation tools. *volume 135*, pp. 190-201.
11. Keskkonnaministeerium. (2021, 04 27). Retrieved from [envir.ee: https://envir.ee/ringmajandus/ringmajandus](https://envir.ee/ringmajandus/ringmajandus)
12. Keskkonnaportaal. (n.d.). *keskkonnaportaal.ee*. Retrieved from <https://keskkonnaportaal.ee/et/ringmajandus/ringmajandus-eestis>

CE PRACTICES USED BY ESTONIAN SME SHARING PLATFORMS

13. Kirchherr, J., Reike, D., & Hekkert, M. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation and Recycling*, 221-232.
14. Le, T. T., Behl, A., & Pereira, V. (2022). Establishing linkages between circular economy practices and sustainable performance: the moderating role of circular economy entrepreneurship. *Management Decision*.
15. REDUCES, Interreg Europe. (2020, July 16). *Study Report 1: Product Life Extension*. Retrieved from <https://projects2014-2020.interregeurope.eu/reduces/news/news-article/9265/study-report-on-product-life-extension/>
16. *ringmajandus.envir.ee*. (n.d.). Retrieved from <https://ringmajandus.envir.ee/et/ringdisaini-praktiseerivad-ettevotted>
17. Schulz, C., Hjaltadóttir, R. E., & Hild, P. (2019, November). Practising circles: Studying institutional change and circular economy practices. *Journal of Cleaner Production volume 237*.
18. Simon-Kucher & Partners. (n.d.). *businesswire.com*. Retrieved from <https://www.businesswire.com/news/home/20211014005090/en/Recent-Study-Reveals-More-Than-a-Third-of-Global-Consumers-Are-Willing-to-Pay-More-for-Sustainability-as-Demand-Grows-for-Environmentally-Friendly-Alternatives>
19. TalTech . (2021). *Ringmajanduslike praktikate juurutamise võimaldajad ja barjäärid*. Tallinn.
20. The World Bank. (n.d.). *worldbank.org*. Retrieved from <https://www.worldbank.org/en/topic/sme/finance>
21. Tunn, V. S., Bocken, N. M., Hende, v. d., & Schoormans, J. P. (2019). Business models for sustainable consumption in the circular economy: An expert study. *Journal of Cleaner Production*, 324-333.
22. United Nations Economic Commission for Europe. (n.d.). *unece.org*. Retrieved from <https://unece.org/trade/CircularEconomy#:~:text=The%20circular%20economy%20is%20a,resource%20use%20within%20planetary%20boundaries>
23. United Nations. (n.d.). *un.org*. Retrieved from <https://www.un.org/en/climatechange/what-is-climate-change>
24. Walker, A. M., Opferkuch, K., Lindgreen, E. R., Raggi, A., Simboli, A., Vermeulen, W. J., . . . Salomone, R. (2021). What Is the Relation between Circular Economy and

CE PRACTICES USED BY ESTONIAN SME SHARING PLATFORMS

- Sustainability? Answers from Frontrunner Companies Engaged with Circular Economy Practices. *Circular Economy and Sustainability*.
25. Walker, A. M., Opferkuch, K., Lindgreen, E. R., Raggi, A., Simboli, A., Vermeulen, W. J., . . . Salomone, R. (2022). What Is the Relation between Circular Economy and Sustainability? Answers from Frontrunner Companies Engaged with Circular Economy Practices. *Circular Economy and Sustainability*, 731-758.
 26. Veolia. (2020, September 3). *blog.veolianoorthamerica.com*. Retrieved from <https://blog.veolianoorthamerica.com/circular-economy-product-as-a-service-business-model>
 27. World Bank Group. (2022). *olc.worldbank.org*. Retrieved from <https://olc.worldbank.org/content/circular-economy>
 28. World Economic Forum. (2023, February 24). *weforum.org*. Retrieved from <https://www.weforum.org/agenda/2023/02/tackling-waste-is-critical-for-building-a-circular-economy-and-the-solution-is-local/>

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Appendices

APPENDIX A

Literature review

Author(s)	Name of the work	Aim of the work	Method(s)	Results
(Kalmykova, Sadagopan, & Rosado, 2018)	Circular economy – From review of theories and practices to development of implementation tools	Provide a summary of the CE concept and have a clearer description of CE, as well as give tools for its implementation.	Qualitative: Literature review of 118 documents	Development of the CE strategies database and the CE implementation database.
(Bassi & Dias, 2019)	The use of circular economy practices in SMEs across the EU	Analyze the business characteristics that may have an impact on CE practices across all SMEs in the EU.	Quantitative using secondary data (Flash Eurobarometer 441)	Direct association between the size of the firm, total turnover, investment into R&D and implementation of CE; EU countries classified into four homogeneous groups
(Schulz, Hjaltadóttir, & Hild, 2019)	Practising circles: Studying institutional change and circular economy practices	Recombine conceptual perspectives for understanding new CE practices, and b) provide methods for operationalizing and evaluating aspects about ongoing CE efforts.	Observation; Network analysis; Content and discourse analysis; Material and energy flow analysis; Management and infrastructure analysis	Reveal collective practices; Patterns of practice actor networks; discourse patterns and groupings; LCA and material flows; Barriers and enablers
(Walker, et al., 2022)	What Is the Relation between Circular Economy and Sustainability? Answers from Frontrunner Companies	Find out how top companies understand the relationship between CE and sustainability.	Mixed: semi-quantitative survey; semi-	Identified two non-mutually exclusive perspectives about the connection between CE and sustainability.

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	Engaged with Circular Economy Practices		structures interviews (sample is companies in Italy and Netherlands)	Sufficiency and bioeconomy emerged as additional concepts associated with CE. The perspectives on CE and the connection to sustainability did not vary greatly.
(Le, Behl, & Pereira, 2022)	Establishing linkages between circular economy practices and sustainable performance: the moderating role of circular economy entrepreneurship	Examine the mechanism of how circular economy practices (CEP) and circular economy entrepreneurship (CEE) promote sustainable supply chain management (SCM) and facilitate sustainable performance (SP) for small and medium-sized enterprises (SMEs) in the food value chain in emerging economy (Le, Behl, & Pereira, 2022).	Quantitative: survey	The better the circular economy entrepreneurship, the stronger the impact of the circular economy practices on the sustainable supply chain management, leading to long-term sustainability. The better the circular economy practices, the more the supply chain management is sustainable, ultimately leading to sustainable performance.
(Kirchherr, Reike, & Hekkert, 2017)	Conceptualizing the circular economy: An analysis of 114 definitions	Create common understanding about the different ways circular economy concept is understood.	Qualitative : Interviews; gathering and analyzing of written definitions	Circular economy is most frequently depicted as a combination of reduce, reuse and recycle activities, whereas it is oftentimes not highlighted that CE necessitates a systemic shift. The

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definitions show
few explicit
linkages of the
circular economy
concept to
sustainable
development.

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APPENDIX B

Extended version of the table of interview questions

Theme	Original question from source	Amended question for the interview in English and Estonian	Source
N/a		Could you explain in your own words what your company is doing? <i>Kas saate täpsemalt enda sõnadega rääkida sellest millega teie ettevõtte tegeleb?</i>	Added by the author
N/a	How many employees (full-time equivalent) does your company currently have?	How many employees does your company currently have? <i>Mitu töötajat Teie ettevõttes hetkel on?</i>	(European Commission Directorate-General for Communication, 2016)
N/a	What was your company's total turnover in 2021?	What was your company's total turnover in 2021? <i>Mis oli Teie ettevõtte käive 2021 aastal?</i>	(European Commission Directorate-General for Communication, 2016)
Theme 1: Definition	Defining circular economy	How would you describe Circular Economy? What are the most important components of CE? <i>Kuidas kirjeldaksite ringmajandust? Mis on ringmajanduse kõige olulisemad komponendid?</i>	(Walker A. M., et al., 2021) (Tunn, Bocken, Hende, & Schoormans, 2019) (Kirchherr, Reike, & Hekkert, 2017)
N/a	Could you please tell us if and what percentage of your company's turnover in 2015 was invested in Research and Development?	What percentage of your company's turnover in 2021 was invested in CE related activities? <i>Kas ja mis % ettevõtte 2021 käibest läks ringmajandusega seotud praktikate jaoks?</i>	(European Commission Directorate-General for Communication, 2016)
Theme 2: CE Practices	What were your first steps in implementing circularity? Have these changed within the years?	Explain, how your company started using CE practices – was it funded on CE model or did you start with the practices later on?	(Circle Economy, n.d.)

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		Which were the first steps implementing CE? <i>Kirjeldage, kuidas Teie ettevõtte ringmajanduse põhimõtetega alustas – nt. kas ettevõtte oli kohe rajatud ringmajanduse mudelile või alustasite praktikatega hiljem? Mis olid Teie esimesed sammud ringmajandust praktiseerides?</i>	
Theme 2: CE Practices	n/a	Which CE practices do you currently use in your company? - Have these changed within the years? <i>Milliseid ringmajanduse praktikaid hetkel oma ettevõttes kasutate? Kas need on aastatega muutunud?</i>	Added by the author
Theme 2: CE Practices	n/a	Which of the beforementioned CE practices bring the most benefit (efficiency, revenue, etc.) to your company in your opinion? <i>Millised eelmainitud ringmajanduse praktikatest toovad kõige rohkem kasu (efektiivsus, käive, vms) Teie ettevõttesse?</i>	Added by the author
Theme 3: Market demand for companies using CE practices	Is there a market demand for reused/recycled materials?	Is there a market demand for the products of companies using CE practices? <i>Kas ringmajandust kasutatavate ettevõtte toodetele on turul nõudlust?</i>	(Giorgi, et al., 2022)

Resüme

RINGMAJANDUSE PRAKTIKAD EESTI VKE JAGAMISPLATVORMIDES

Keidi Roosimäe

Alates 1800. aastatest on inimtegevus põhjustanud erinevaid keskkonnaprobleeme, nagu kliimamuutus, kasvuhoonegaasid, prügilate arvu suurenemine ja paljud teised (United Nations, kuupäev puudub). Tänu sellele on keskkonnasõbralikud valikud ja ringmajandus (CE) viimastel aastatel populaarsust kogunud, eriti uue põlvkonna tarbijate näol, tarbivad teadlikumalt ja jätkusuutlikumalt (Simon-Kucher & Partners, kuupäev puudub). On alust arvata, et ringmajanduse kui kontseptsiooni ja selle praktikate uurimine aitab toime tulla kliimamuutuste ja paljude teiste tulevikku ähvardavate keskkonnaprobleemidega. Seda arvesse võttes on käesolev lõputöö väga aktuaalne ja oluline.

Käesoleva töö eesmärgiks on selgitada ringmajanduse praktikaid, mida kasutavad valitud Eesti väike- ja keskmise suurusega ettevõtted (VKEd). Peamine fookus on jagamisplatvormidel (Mudel 4) (Cui, 2021). (United Nations, kuupäev puudub)

Teoreetilises osas selgitas autor kontseptsiooni teoreetilist tausta, analüüsis ringmajanduse põhitõrmineid ja definitsioone ning andis ülevaate selle teemalistest varasematest rahvusvahelistest uuringutest. Teooria tulemuste põhjal olid intervjuudes uuritud peamiselt järgmised teemad: ringmajanduse definitsioon, ringmajanduse praktikad ja turunõudlus ringmajandust kasutavate ettevõtete jaoks. Lisaks testintervjuule on töös tehtud 4 intervjuud. Intervjuud kestsid keskmiselt 30-50 minutit ja kokku 141 minutit. Intervjuude sõna-sõnalt transkriptsioonid oli kokku 33 lehekülge pikk. Autor analüüsis ja kodeeris intervjuud ning jagas nende põhjal koodid kategooriatesse ja koostas tabeli uurimise tulemustest. Kõiki kategooriaid ja koode selgitati täpsemalt empiirilises osas.

Töö kitsaskohana on autor välja toonud, et kuigi kõik ettevõtted kuulusid jagamisplatvormi mudelisse, olid nad siiski üsna erinevad oma suuruse, eesmärgi ja igapäevaste tegevuste poolest. Ainult näiteks sõidujagamise platvormi võrreldes oleks kergem olnud üldistada ja mustreid leida. Soovitused edasiseks uurimistööks autorilt oleksid ringmajanduse praktikate uurimine muudes teenindusettevõtetes (mitte jagamisplatvormides). Lisaks on soovitatav uurida teisi organisatsioone (näiteks suured ettevõtted või mittetulundusühingud).

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