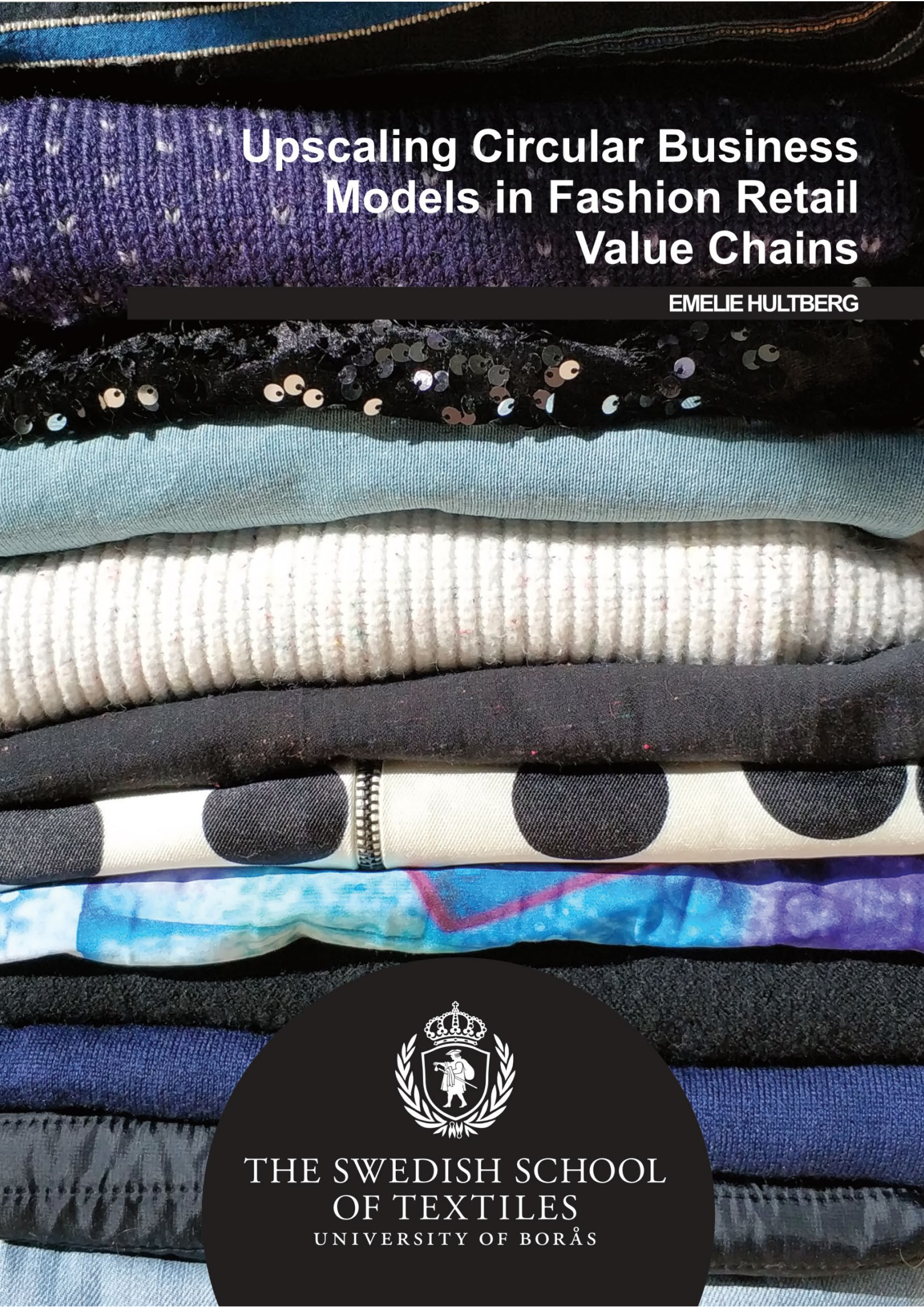

Upscaling Circular Business Models in Fashion Retail Value Chains

EMELIE HULTBERG

THE SWEDISH SCHOOL OF TEXTILES
UNIVERSITY OF BORÅS

THESIS FOR THE DEGREE OF LICENTIATE IN TEXTILE MANAGEMENT

Upscaling Circular Business Models in Fashion Retail Value Chains

Emelie Hultberg
Högskolan i Borås

UNIVERSITY OF BORÅS

Licentiate Thesis in Textile Management

Upscaling circular business models in fashion retail value chains

© 2021 Emelie Hultberg

Published by
Swedish School of Textiles, University of Borås
Skaraborgsvägen 3
S-501 90 Borås
Tel. +46 33 435 40 00
www.hb.se

ISBN 978-91-89271-38-8 (printed)
ISBN 978-91-89271-31-9 (pdf)
ISSN 0280-381X, Skrifter från Högskolan i Borås, nr. 120

Abstract

The textile industry is currently operating in an unsustainable manner that is based on overproduction and wasteful, resource-draining practices. Therefore, recently, the concept of circular economy has been presented as a possible solution and a way forward. Changing linear economy business practices and basing them on the circular economy concept is anticipated to solve social and environmental problems while maintaining economic growth. However, fashion retail value chains essentially depend on the logic of mass production, fast fashion, and linear take-make-dispose models. Presently, circular initiatives in this context are rather limited. This thesis posits that circular business model (CBM) scalability is an important factor in the transition to a circular economy in the fashion retail value chain, and thus, a more sustainable fashion industry.

Therefore, the purpose of this thesis is to further the understanding of CBM scalability in the context of fashion retail value chains. This includes expanding the notion of scalability to cover a more holistic perspective that goes beyond increasing production output solely for economic gains. Additionally, this involves enhancing the understanding of the required specific resources and capabilities that CBMs must have or develop to overcome challenges and increase their potential for scalability. Accordingly, this thesis covers three papers that utilise qualitative methods wherein archival material, such as peer-reviewed journal articles and industry reports, as well as interviews with practitioners are used.

Moreover, the extension of the notion of business model scalability goes beyond the boundary of the organisation and encompasses three different perspectives, namely, efficiency, adaptability, and altruism. In addition to this, three areas that challenge CBM scalability are identified. These challenges stem from different business model design themes and can be described as (i) inefficiency, (ii) lack of know-how and out-of-the-box solutions, and (iii) unfamiliarity resulting in scepticism and dissonance with current practices and policy. Finally, the thesis contributes to the CBM literature by utilising the theoretical lenses of resource-based theory and dynamic capabilities theory to identify resources and dynamic capabilities that are strategically important for scaling CBMs. This thesis expands the notion of scalability by going beyond the boundary of the single organisation as well as including a triple bottom line perspective, thus providing an important addition to the understanding of the scalability of CBMs.

Keywords: circular business models; fashion industry; scalability; resource based theory; dynamic capabilities; retail value chain

Abstrakt

Textilindustrin verkar för närvarande på ett ohållbart sätt som bygger på överproduktion och resurskrävande metoder. Cirkulär ekonomi som koncept, har därför nyligen presenterats som en möjlig lösning på de problem som industrin står inför. Genom att frångå linjära praxis och istället bygga affärsmetoder på cirkulär ekonomi förväntas sociala och miljömässiga problem kunna lösas samtidigt som den ekonomiska tillväxten bibehålls. Modeindustrins värdekedjor bygger dock fortfarande huvudsakligen på massproduktion, fast fashion och linjära take-make-dispose-modeller. Cirkulära initiativ är i detta sammanhang ganska begränsade. Denna avhandling framhäver därför, att skalbarhet av cirkulära affärsmodeller är en viktig faktor i övergången till en cirkulär ekonomi, och därmed en mer hållbar modeindustri.

Syftet med denna avhandling är följaktligen att öka förståelsen för skalbarhet av cirkulära affärsmodeller inom modebranschens värdekedjor, med fokus på detaljhandeln. Innefattat i detta är ett utvidgat begrepp av skalbarhet, som inkluderar mer än enbart ökad produktion för ekonomisk vinst. Till detta hör även en ökad förståelse av de specifika resurser och förmågor som cirkulära affärsmodeller måste ha eller utveckla för att övervinna utmaningar och bli mer skalbara. Avhandlingen omfattar tre artiklar som använder kvalitativa metoder där arkivmaterial, såsom refereegranskade journalartiklar och branschrapporter, samt intervjuer med personer verksamma i branschen, används.

Resultatet påvisar att cirkulära affärsmodellers skalbarhet går bortom organisationens gränser och omfattar tre olika perspektiv: effektivitet, anpassningsförmåga och altruism. Utöver detta identifieras tre områden som speciellt utmanande för skalbarheten. Dessa utmaningar härrör från två olika designteman av affärsmodeller och kan beskrivas som (i) ineffektivitet, (ii) bristande kunskap och brist på färdiga lösningar, och (iii) obekantskap som resulterar i skepsis och dissonans med nuvarande praxis och policy. Slutligen bidrar avhandlingen till litteraturen om cirkulära affärsmodeller genom att använda resursbaserad teori och dynamiska förmågor-teori för att identifiera resurser och dynamiska förmågor som är strategiskt viktiga för skalbarhet av cirkulära affärsmodeller. Avhandlingen bidrar således till kunskapen om cirkulära affärsmodellers skalbarhet genom att utvidga begreppet till att även innefatta aktiviteter som sträcker sig utanför den enskilda organisationen, samt inkludera ett triple bottom line-perspektiv.

Nyckelord: cirkulära affärsmodeller; modeindustrin; skalbarhet; resursbaserad teori; dynamiska förmågor; värdekedjor

Acknowledgements

First, I would like to thank my supervisor, Rudrajeet Pal, and my co-supervisor, Erik Sandberg, for the much needed guidance and support that helped me complete this thesis. Thank you for pushing me to start writing, and always telling me to write more. I might not have liked it at the time, but I know it has made me a better writer.

Further, I would like to acknowledge all the industry practitioners that participated in the interviews for giving their valuable time and opinions. Thank you for the interesting discussions, and the work you are doing to develop a more sustainable fashion industry.

Most importantly, I would like to thank my family and friends for always believing in me. A special thanks to my father John Hultberg for always having the time to discuss and explain scientific questions, and to Kristofer Karlsson and Mira for making this thesis possible by tricking me into moving to Borås.

Finally, I would like to extend my gratitude to Handelsbankens forskningsstiftelser (Jan Wallander and Tom Hedelius Foundation, Tore Browalds Foundation) for funding the research projects and making the research included herein possible.

List of appended papers

Paper 1:
Hultberg, E. & Pal, R. (2021). Lessons on business model scalability for circular economy in the fashion retail value chain: Towards a conceptual model. *Sustainable Production and Consumption*, vol. 28, pp. 686-698. doi: https://doi.org/10.1016/j.spc.2021.06.033.

Paper 2:
Hultberg, E. & Pal, R. (2021). Scaling resale-based circular business models: A study of Swedish fashion resellers. Presented at the *4th Conference on Product Lifetimes and the Environment (PLATE) 2021 Virtual Conference*, 26-28 May 2021.

Paper 3:
Sandberg, E. & **Hultberg, E.** (20xx). Dynamic capabilities for scaling of circular business model initiatives in fashion industry. Submitted to an international peer-reviewed journal (Under review).

Contents

1 Introduction 1

1.1 Research background 1

1.2 Problem discussion 2

1.3 Research purpose and research questions 3

1.4 Scope and delimitations 3

1.5 Disposition 4

2 Frame of reference 5

2.1 Business models 5

2.2 Circular economy 6

2.3 Circular business models 7

2.4 Business model scalability 7

3 Theoretical perspectives 10

3.1 Resource-Based theory 10

3.2 Dynamic Capabilities Theory 11

4 Methodology 13

4.1 Scientific approach 13

4.2 Research design 14

4.2.1 Collection of empirical material 15

4.2.2 Analysis of empirical material 17

4.3 Research quality 18

5 Summary of appended papers 20

5.1 Paper 1 20

5.2 Paper 2 21

5.3 Paper 3 22

5.4 The interrelatedness of appended papers 24

6 Analysis and discussion 26

6.1 How can scalability be described in a circular business model context? (RQ1) 26

6.1.1 Scalability through increased efficiency 26

6.1.2 Scalability through flexibility and adaptability 28

6.1.3 Scalability through altruism 29

6.2 How can resources and capabilities contribute to solving key challenges for scaling CBMs in the fashion retail value chain? (RQ2) 30

6.2.1 Three challenging areas 30

6.2.2 Resources and capabilities that contribute to solving the identified challenges 31

7 Conclusion and future research 36
7.1 Summary 36
7.2 Theoretical contributions 36
7.3 Practical contributions 37
7.4 Limitations and future research 37
References 39
Appendices 46
Appended papers, abstracts 51

List of figures and tables

Figures

Figure 1. Scope of thesis showing key concepts, context, and theoretical perspectives 4
Figure 2. Publications of papers per year that include the terms “business model” and "scal*" (reproduced from Paper 1) 8
Figure 3. Two modes of scalability: diffusion and replication 9
Figure 4. Research chronology 14
Figure 5. The research design 15
Figure 6. The conceptual model developed in Paper 1 (reproduced from Paper 1) 21

Tables

Table 1. Overview of methods for collecting and analysing empirical material 15
Table 2. Overview of appended papers 20
Table 3. Summary of microfoundations of dynamic capabilities involved in circular business model scaling (reproduced from Paper 3) 24
Table 4. The interrelatedness of the appended papers 25
Table 5. Answering the research questions 26

1 Introduction

This thesis explores how circular business models (CBMs) in fashion retail value chains can scale their reach and operations to facilitate the transition to a circular economy. This section describes and discusses the background and importance of this research. First, a problematisation is provided regarding why CBM scalability must be further understood. Following this, the purpose and accompanying research question that have guided the research project are presented. Thereafter, the research scope is discussed to clarify delimitations, and finally, the disposition of the thesis is outlined.

1.1 Research background

It is no secret that the linear economic system, which builds on the primary logic of take-make-dispose, is predominant in business models in the fashion retail value chain. Generally, the fashion industry is considered as one of the most polluting industries globally (Ellen MacArthur Foundation 2017; UN Environment Programme 2020). Additionally, the industry's impact on society and the economy is extensive as it is expected to grow globally from US$ 1.9 trillion in 2019 to US$ 3.3 trillion in 2030 (Ki, Chong & Ha-Brookshire 2020), and it employs and impacts the lives of workers worldwide (UN Environment Programme 2020).

Textile and fashion value chains are characterised by their global multi-tier setups, wherein raw material can cross several borders before the finished product is made available to customers (European Environment Agency 2019; Niinimäki et al. 2020). This is a consequence of the pursuit of reduced production costs in a price-sensitive and dynamic industry in which many fashion retail brands outsource their manufacturing processes to suppliers in lower-labour-cost countries in Asia or South America (Thomassey 2010). At the turn of the century, this culminated in fast fashion and business models that exploit mass production and flexible supply chains to rapidly produce and sell large volumes of garments (Zamani, Sandin & Peters 2017). Consequently, the prices of garments have decreased and the rate of introduction of new trends has increased (Niinimäki et al. 2020; Zamani, Sandin & Peters 2017). Not only has this led to an increase in the purchasing of new products, but the fast-moving trends and low value of garments have also increased the disposal rate of garments. In Sweden, estimates of the textile consumption indicate an increase of nearly 40% between the years 2000 and 2009 (calculated as net inflow), which corresponds to 15 kg per capita in 2008 (Carlsson, Hemström, Edborg, Stenmarck & Sörme 2011). During the same year, 8 kg textiles per capita were disposed of as household waste and 3 kg were donated to charities (Carlsson et al. 2011).

Both governments and the industry stakeholders recognise that the textile industry is currently operating in an unsustainable manner, which builds on wasteful, resource-draining practices (e.g. European Environment Agency 2019; Lehmann et al. 2019). The European Environment Agency, for example, lists the textile industry as fourth in terms of environmental pressure (after food, housing, and transport), and lists it as a priority product category within a circular economy in Europe (European Environment Agency 2019). In addition, industry-wide networks such as The Sustainable Apparel Coalition and The Global Fashion Agenda, wherein different stakeholders meet to discuss solutions to the industry's sustainability issues, have been created. Notwithstanding, the fashion retail value chain continues to build on the logic of mass production, fast fashion, and linear take-make-dispose models (Lehmann et al. 2019; Pal, Shen & Sandberg 2019). Customers are used to being served with new trends at a low cost. Therefore, changing these unsustainable business models to serve customers in more sustainable ways is challenging. Nevertheless, new business models that allow customers to update their wardrobes at a similar rate but in a more sustainable way are concurrently emerging along with

the recent years increased focus on the circular economy (Ellen MacArthur Foundation 2017). For example, instead of buying new garments, customers are offered subscription services, wherein they can use garments for a limited time and then exchange them for other garments (cf. Adam, Strähle & Freise 2018; Zamani, Sandin & Peters 2017). Other examples are second-hand stores and peer-to-peer platforms in which customers can buy or sell used garments (cf. Ferraro, Sands & Brace-Govan 2016; Hvass 2015).

Since the circular economy presents a systemic change wherein economic growth can be decoupled from the environmental and social issues connected to production, it holds a promise of continued consumption albeit following different practices than the take-make-dispose logic. Thus, the circular economy concept has therefore been presented as a possible solution for developing the industry in a more sustainable fashion (Ellen MacArthur Foundation 2013; Geissdoerfer, Savaget, Bocken & Hultink 2017). However, to capture the potential value of the circular economy, organisations must develop and implement business models that build on circular practices (Lüdeke-Freund, Gold & Bocken 2019; UN Environment Programme 2020), that is, CBMs.

1.2 Problem discussion

A growing interest in the circular economy from consumers, the industry, and policymakers alike (Ellen MacArthur Foundation 2017; Ki, Chong & Ha-Brookshire 2020) has resulted in the implementation of an increasing number of CBM initiatives in the fashion retail value chain. However, the predominance of CBM with respect to linear models is a distant goal. For example, The Ellen MacArthur Foundation writes that “these efforts offer solutions and demonstrate promising progress in various areas, but are fragmented and often only effective at small scale” (Ellen MacArthur Foundation, 2017, p. 26). Additionally, a recent report on the consumption behaviours in the Swedish market shows that second-hand consumption has increased in recent years while apparel consumption as a whole has decreased (Roos 2020). Notwithstanding, the increase in the frequency of second-hand consumption is preceded by some years of decline and lower levels of consumption. This indicates that the trajectory points to a possible transition towards more circular consumption, but the rate at which this change is happening is slow. In line with this, a report by the European Environment Agency (2019) identifies the lack of scalability of CBMs as one of the main reasons for the slow transition to a circular economy in the textile industry in Europe. Other studies have come to similar conclusions, Franco (2017), for example, finds that the incapability of exploiting economies of scale is a barrier for CBMs to increase demand and scale their reach. Similarly, Pal and Gander (2018) argue that the lack of potential to scale is a reason why business models building on sustainability (including CBM) cannot replace existing unsustainable business models.

This thesis, therefore, argues that CBM scalability is an important factor that, if better understood, could contribute to a more sustainable fashion industry. Even though pilots and start-up initiatives are important for the transition to a circular economy by contributing to innovation and new technology development (Rok & Kulik 2020), they will not have a significant impact unless they can scale up and displace current linear consumption practices. However, in the otherwise growing body of CBM literature, the notion of scalability specific to CBMs, including the resources, capabilities, and strategies that could be useful for overcoming the low scalability potential highlighted above, has been largely overlooked. Instead, extant studies tend to focus on the preceding implementation and innovation processes (cf. Ferasso, Beliaeva, Kraus, Clauss & Ribeiro-Soriano 2020; Geissdoerfer et al. 2017; Guldmann & Huulgaard 2019; Lopes de Sousa Jabbour et al. 2019).

Another issue is that literature on business model scalability generally concentrates on economic values gained from digital solutions and economies of scale in production (Stampfl, Prügl & Osterloh

2013; Zhang, Lichtenstein & Gander 2015). Further, a growing stream of literature is dealing with the scalability of social business models, wherein scaling the social impact is the main focus (e.g. Bauwens, Huybrechts & Dufays 2020; Bloom & Chatterji 2009; Moore, Riddell & Vocisano 2015). This provides a wider perspective on the scalability of business models; however, it is not readily applicable to a CBM context since it mainly addresses the social dimension and not environmental or economic concerns. Thus, the notion of scalability of CBMs remains partially unattended due to the lack of more holistic and encompassing discussions. Therefore, to understand the scalability of CBMs, and thus, contribute to the transition to a sustainable fashion industry, the concept of scaling requires the inclusion of a wider perspective, which is not yet fully developed in CBM literature.

1.3 Research purpose and research questions

To further understand CBMs' ability to scale their reach and operations in the context of fashion retail value chains, we must analyse whether there is something inherent in the CBM design and its underpinning logic that affects scalability. Moreover, this requires a better understanding of the specific resources and capabilities CBMs must have or develop to overcome scalability challenges and increase their potential to scale. Accordingly, two research questions are proposed (RQ1 and RQ2), which are explored through three different papers.

The first research question seeks to explore the concept of business model scalability, specifically, the scalability of CBM in fashion retail value chains. Further, this research question aims to understand and explore whether the multiple value proposition (building on a triple bottom line perspective) affects the notion of scalability and requires the inclusion of additional perspectives for a more comprehensive description of what it means for a CBM to be scalable. Hence, the first research question is as follows:

> RQ1*: How can scalability be described in a CBM context?*

The second research question seeks to understand how CBMs in the fashion industry can access, develop, and reconfigure resources and capabilities to overcome some of the key challenges related to scalability. To this end, both resource-based and dynamic capability views are used to cover fixed strategic resources that may contribute to a scalable CBM and dynamic capabilities that allow CBM to change and adapt to new conditions, respectively. Accordingly, the second research question is as follows:

> RQ2: *How can resources and capabilities contribute to solving key challenges for scaling CBMs in the fashion retail value chain?*

1.4 Scope and delimitations

To meet the purpose and answer the research questions, three key concepts are identified, which in combination with the industrial context of fashion retail value chains, help define and set the delimitations for the scope of this research project (see Figure 1). The first is the concept of a circular economy. This includes the circular practices and resource flows that business models must conform to for operating in a circular economy. The second is the concept of business models and how their design and configuration affect the operations of an organisation. The final concept is that of scalability, including what it is and how it can be used to describe mechanisms for business model expansion. These three key concepts are further explained in the following section.

To analyse and understand the strategic resources and capabilities required on an organisational level, two theoretical perspectives are relevant. Specifically, resource-based theory and dynamic capabilities theory constitute the lens through which the empirical material is analysed. The resource-based view

provides a lens for studying the resources and capabilities that organisations require to grow and thrive in a circular economy (cf. Franco 2017; Linder & Williander 2017). Complementarily, the dynamic capabilities theory provides a lens for studying the dynamic capabilities required for CBM scalability. This presents a dynamic perspective that, in contrast to the resource-based theory, covers the process of strategic change through sensing, seizing, and reconfiguring an organisation's competencies and resource base (Teece 2007).

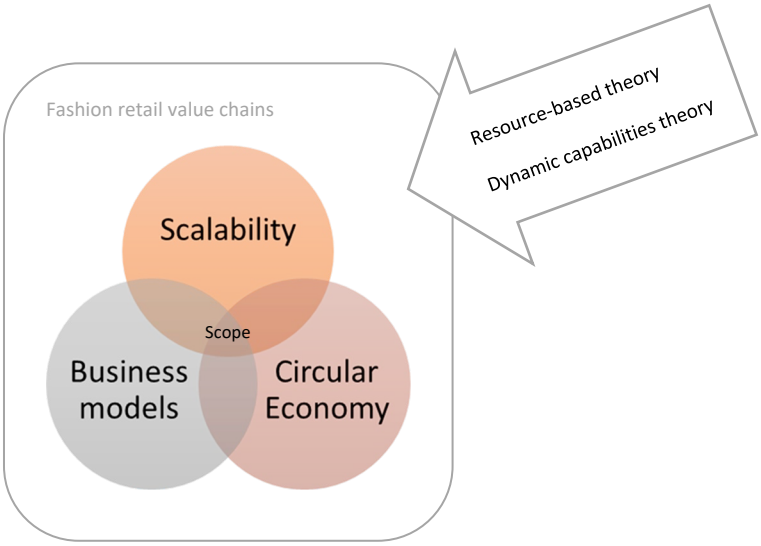

Figure 1. Scope of thesis showing key concepts, context, and theoretical perspectives

1.5 Disposition

This compilation thesis comprises seven sections and three papers. In the next two sections, the key concepts (**Section 2**) and theoretical perspectives (**Section 3**) are introduced. This is followed by a presentation of the methodology, which includes the scientific approach, research design, and methods for collecting and analysing the empirical material (**Section 4**). Then, the papers and their findings and contributions to the thesis as a whole are summarised (**Section 5**). Next, the findings are analysed and discussed with respect to the research questions (**Section 6**). Finally, the thesis is concluded by summarising the key findings, contributions to theory and practice, and limitations and suggestions for future research (**Section 7**).

2 Frame of reference

This section introduces the key concepts of the thesis through the review of relevant literature. The frame of reference positions the research within established streams of research and provides the foundation of the thesis.

2.1 Business models

The concept of business models emerged as a framework for describing novel ways to earn profit and organise businesses during the 1990s' internet boom (Boons & Lüdeke-Freund 2013). Since then it has grown in popularity and application and is now considered a well-established unit of analysis (Zott, Amit & Massa 2011). Ritter and Lettl (2018) refer to business model research as a "theoretical mechanism for combining different literature streams" (p. 1) within the field of strategic management, including resource-based theory and dynamic capabilities theory.

Originally, the business model framework was developed for for-profit organisations (Acquier, Carbone & Massé 2019; Zott, Amit & Massa 2011), but the application has grown to cover a variety of governance models, such as social/hybrid-organisations (cf. Thompson & MacMillan 2010), and sharing business models (cf. Acquier, Carbone & Massé 2019), as well as sustainable and circular business models (cf. Bocken, Schuit & Kraaijenhagen 2018; Frishammar & Parida 2018).

The popularity and wide application of the business model concept have brought about a wide array of definitions (Zott, Amit & Massa 2011). However, excluding idiosyncratic definitions, business models are generally seen as models for describing how organisations create, deliver, and capture value (Osterwalder & Pigneur 2010) through their activities and partners (Zott, Amit & Massa 2011). In other words, a business model outlines the architecture of how an organisation "do business" (Osterwalder, Pigneur & Tucci 2005; Zott, Amit & Massa 2011) by explaining "how an actor is positioned within a value network or supply chain, and how a business turns inputs into outputs while fulfilling its goals " (Ritter & Lettl 2018, p. 1). Building on Schön (2012) and Osterwalder and Pigneur (2010), Teece (2018) suggests that a business model should contain information regarding the following three categories:

Value Proposition: Product & Service; Customer Needs; and Geography
Revenue Model: Pricing Logic; Channels; and Customer Interaction
Cost Model: Core Assets & Capabilities; Core Activities; and Partner Network

To be successful, elements within these categories, such as resources, capabilities, partners, and sales channels, must be aligned with the business model design and deliver on the planned value creation (Teece 2018). A business model that is designed to do this in a way that is "sufficiently differentiated and hard to replicate for incumbents and new entrants alike" (Teece 2010, p. 173) creates a sustainable competitive advantage for the organisation. This often requires business model innovation through novel ways in which the business models elements and components are configured (Chesbrough 2010; Sosna, Trevinyo-Rodríguez & Velamuri 2010).

To capture and measure the effect and trade-offs that different business model configurations may have with respect to the performance, Zott and Amit (2007) suggest looking at key design themes. These design themes represent different approaches to orchestrating and connecting the elements of a business model. Thus, the design theme can be said to describe a preference for how resources and capabilities are employed within and across organisations' boundaries (Miller 1996). Even though different themes may exist, efficiency-centred and novelty-centred ways are fundamental to organising, and creating value (Miller 1996; Zott & Amit 2007). Further, Zott and Amit (2007) suggest lock-in (i.e. high switching costs) and complementarities (i.e. synergies between offerings) as

alternative themes, however, they have less effect on the performance, at least when viewed separately (Kulins, Leonardy & Weber 2016).

The novelty-centred business model design describes the conceptualisation of new ways of organising transactions between stakeholders or linking unconnected participants (Kulins, Leonardy & Weber 2016; Zott & Amit 2007). Thus, this theme is characterised by innovation and experimentation, which, in the scope of scalability, would incorporate activities, such as finding new opportunities, adapting the business model or the offer, finding new collaborations, or reaching the customer in new ways. Thus, this theme showcases how change and novelty in business model elements affect its ability to scale.

The efficiency-centred business model design refers to minimising cost and increasing efficiency in the transactions of all parties, through the business model configurations (Kulins, Leonardy & Weber 2016; Zott & Amit 2007). In contrast to the novelty-centred business model design, this theme deals with how simplification and reliability can be built into the business model design. Instead of creating novel configurations, performance is improved by doing things in a similar way as others, but more efficiently and with better results. Regarding business model scalability, this refers to how the business model and the orchestration of its elements are standardised and simplified to reduce transaction costs and organisational complexity.

Both these themes describe different ways in which business model elements can be organised. However, Zott and Amit (2007) further point out that the two themes are not mutually exclusive, and therefore, a business model can have attributes of both novelty-centred and efficiency-centred business model design.

2.2 Circular economy

As mentioned in Section 1, a circular economy aims to solve environmental concerns by transitioning the economic system from a take-make-dispose logic to a system built on resource circulation (Lieder & Rashid). Kirchherr, Reike and Hekkert (2017) call it an operationalisation of the concept of sustainable development for businesses' implementation. Accordingly, it takes a holistic view of what is usually called the triple bottom line: balancing economic, environmental, and social performance (Bauwens, Hekkert & Kirchherr 2020; Geissdoerfer et al. 2017). However, literature reviews on the subject conclude that it is the economic and environmental dimensions that are in focus for circular economy research and businesses (Geissdoerfer et al. 2017; Kirchherr, Reike & Hekkert 2017). The social dimension is considerably less explored and often left out completely (Geissdoerfer et al. 2017).

A central concept in a circular economy is the elimination of waste and more efficient use of resources. This is done by keeping resources at their highest value for as long as possible, and then looping them back in different resource loops to be used as "new" raw material (Nußholz, 2017). This is often described in terms of the 3R framework: reduce, reuse, and recycle (Lieder & Rashid 2016). Similarly, Bocken, de Pauw, Bakker and van der Grinten (2016) prescribe the strategies of closing, slowing, and narrowing resource loops to achieve a higher degree of resource cycling and use. Here, closing and slowing, wherein resources are either cycled back for reuse and/or the flow of resources is significantly slowed down, is the main logic in a circular economy. In addition, narrowing can be used to achieve a higher degree of resource efficiency within the resource flows (Bocken et al. 2016).

As with many popular concepts, there is no generally accepted definition even though the underpinning logics are largely similar (Geissdoerfer et al. 2017; Kirchherr, Reike & Hekkert 2017). The most well-known definition is perhaps that provided by the Ellen MacArthur Foundation: "A circular economy is an industrial system that is restorative or regenerative by intention and design" (2013, p.

7). However, others, like Geissdoerfer et al. (2017), try to construct more explicit descriptions, for example, “a regenerative system in which resource input and waste, emission, and energy leakage are minimised by slowing, closing, and narrowing material and energy loops. This can be achieved through long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling” (p. 759). However, to achieve this, the industry requires business models that can help companies conceptualise circular practices (e.g. reuse, repair, and remanufacturing) by turning them into business opportunities.

2.3 Circular business models

CBMs are sometimes included in the larger scope of sustainable business models (Bocken, Short, Rana & Evans 2014; Stål & Corvellec 2018). This refers to business models that incorporate societal and environmental concerns in their practices, and contribute to the successful marketing of sustainable innovations (Bocken & Geradts 2020; Boons & Lüdeke-Freund 2013). CBMs are more narrowly defined as business models that implement circular strategies/practises in their activities for creating, delivering, and/or capturing value (Frishammar & Parida 2018; Nußholz 2018). Accordingly, in CBMs, value is created from utilising products’ retained value after their use phase, which removes the need for virgin material and eliminates waste (Linder & Williander 2017). This narrower scope of CBMs, rather than sustainable business models in general, is of focal interest in this thesis with respect to a potential transition to a circular economy.

Even though the business model concept focuses on the organisation itself, Zott, Amit and Massa (2011) emphasise that it includes boundary-spanning activities with external parties. This is important in the CBM context since circular strategies often extend company boundaries (Nußholz 2017) and involve collaborations in complex value chains (Pal 2017), wherein different organisations specialise within specific areas. Lüdeke-Freund, Gold and Bocken (2019) identify six different patterns of CBMs that occupy different parts of the resource loop, and therefore, support different CBM strategies: repair & maintenance, reuse & redistribution, refurbishment & remanufacturing, recycling, cascading & repurposing, and organic feedstock. Within these patterns, different business models operate and connect with each other to create resource loops.

In the fashion retail value chain, CBM initiatives occupy several of these patterns, for example, repair services, renting and leasing services, vintage and second-hand stores, redesign initiatives, take-back schemes, and recycling activities (Ellen MacArthur Foundation 2017; Pal & Gander 2018; Watson et al. 2014). To support these CBMs, some organisations incorporate design strategies that facilitate recycling or extended product life (Jia, Yin, Chen, & Chen, 2020), such as using mono-materials, designing for disassembly, designing for easier repair, optimising material usage, or increasing durability (Global Fashion Agenda, 2018; Jia et al., 2020; Pal & Gander, 2018).

2.4 Business model scalability

The Merriam-Webster dictionary defines *scalable* as “capable of being expanded or upgraded on demand”, and gives “a scalable computer network” as an example (Merriam-Webster n.d.). This exemplifies how the term is commonly used to describe a system’s ability to handle increased transactions, but it has become more frequently used to describe similar abilities of business models (Stampfl, Prügl & Osterloh 2013). This can be deduced from the systematic literature review that is conducted as part of this thesis (see Paper 1). The number of papers including the term “business model” in combination with ”scal*” in peer-reviewed journals has increased from 2 papers in 2010 to 18 papers in 2020 (see Figure 2). The increase seems to be attributable to the literature streams of

social innovation and information and communication technology, which together comprise 40% of the papers.

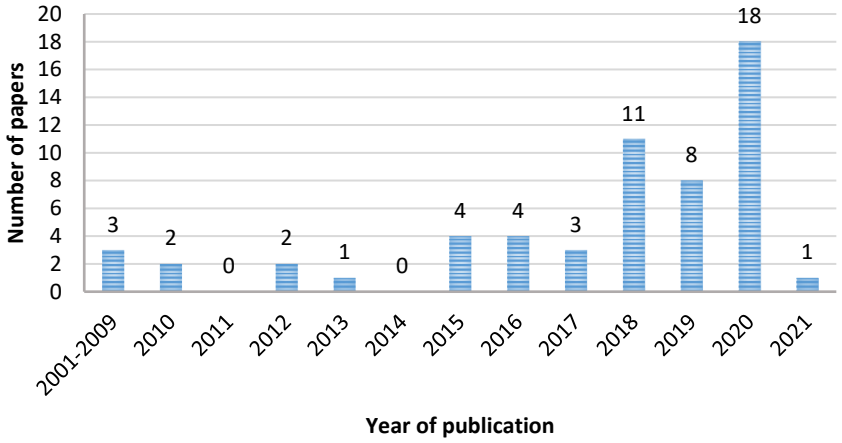

Figure 2. Publications of papers per year that include the terms "business model" and "scal*" (reproduced from Paper 1)

Business model scalability is closely related to organisational growth and strategies associated with frameworks such as Ansoff's growth matrix (Ansoff 1988) and the four strategies of market penetration, product development, market development, and diversification (Bocken, Fil & Prabhu 2016). Primarily, the different forms of diffusion and replication concerning such strategies are discussed in connection to scaling. These represent two distinct modes in which scaling can occur.

Scaling by diffusion refers to how a business model can expand by increasing the volume of the output. von Krogh and Cusumano (2001) simply refer to this as scaling, and describe it as "doing more of what you are good at" (p. 54). For example, a store can increase the volume of sold garments by either selling more to existing customers or finding new customers in the same area (Biloshapka & Osiyevskyy 2018). However, to increase the volume of the output the store needs the capability to process more garments as well (e.g. making more garments available for sale). The ability to do this efficiently contributes to the business model's ability to scale.

Scaling by replication refers to expanding the business model's reach and operation by replicating it in new markets. This is different from scaling by diffusion since it requires the business model, or at least, a large part of the operations, to be replicable. For this mode of scaling to work, the "entrepreneurial know-how" (von Krogh & Cusumano 2001, p. 56) must be packaged in a way that can be copied and understood in a new market context, either internal or external to the organisation (Goyal, Sergi & Kapoor 2017; Winter & Szulanski 2001). Thus, diffusion-based scaling expands the output of a local unit, while replication-based scaling increases the number of units. Figure 3 presents a visual description of these modes.

From a resource-based perspective, an easily replicable business model does not contribute to a sustainable competitive advantage since anyone can copy it. For the organisation to sustain a competitive advantage, the replication logic must additionally build on other specific elements that make it hard to copy. This can for example be the replication process itself, the tacit knowledge it builds on, or copyrights.

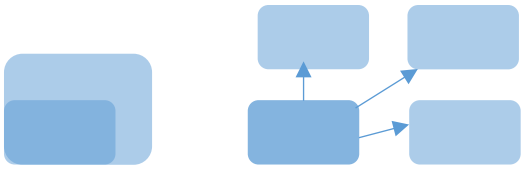

Figure 3. Two modes of scalability: diffusion and replication

Tied to the notion of business model scalability is the idea of achieving a benefit in the growth process. For example, Stampfl, Prügl and Osterloh (2013) state that business model scalability "can be defined as a business model's ability to increase revenues faster than the corresponding cost base" (p. 229). Another aspect to consider is the quality, Zhang, Lichtenstein and Gander (2015) write that "a scalable business model is one in which operational elements have been organized to promote growth, but importantly, this is achieved while also preserving and in some cases increasing the quality and features of products/services" (p. 243). In other words, business model scalability is more than just expanding the operation and reach, it comprises the configurations and capabilities that allow for growth in size or scope, without weakening the quality of the output or increasing the corresponding cost base in the process.

3 Theoretical perspectives

Resource-based and dynamic capabilities theories are identified as appropriate lenses for viewing the empirical material and key concepts and understanding the configurations and capabilities that affect business model scalability. Accordingly, this section describes these theoretical perspectives and their relation to business model scalability.

3.1 Resource-Based theory

The resource-based theory (also known as resource-based view) postulates that companies can be viewed as bundles of resources tied together by an administrative framework (Barney 1991; Penrose 1959). As such, it holds a prominent role in the literature on CBM (Lahti, Wincent & Parida 2018) and business models in general (Ujwary-Gil & Potoczek 2020), wherein it can be viewed as describing the mechanisms regarding how strategic resources are employed to create value (Ritter & Lettl 2018). Teece (2018), for example, writes that to create a competitive advantage the company's strategic "resources must be harnessed to a coherent strategy and a sound business model" (Teece 2018, p. 49). In other words, the strategic resources and the business model need to match. In the context of CBM and scale, this means that organisations must identify their strategic resources, analyse how these resources fit with the business model, and build scalability strategies around these resources.

The development of the resource-based theory can be traced back to Chamberlin (1933) and Penrose (1959), both of whom saw the potential importance of specific organisational resources as an explanation of why some firms do better than others (Barney & Clark 2007; Fahy 2000). However, it was not until the 1980s that this view started to take shape with the work of Wernerfelt (1984). After a slow start, it grew in popularity (Barney & Clark 2007; Fahy 2000) and in the 1990s it gained a prominent role in strategic management literature with works such as Amit and Schoemaker (1993), Barney (1991), and Peteraf (1993). The basic concept behind a resource-based theory is that a company's competitive advantage is primarily decided by access to and employment of strategic resources. Here resources have a wide scope that includes "all assets, capabilities, organisational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness" (Barney 1991, p. 101). Barney (1991) constructs four critera that must be adhered to regarding strategic resources namely, valuable, rare, imperfectly imitable, and non-substitutable. In sum, this means that an organisation with access to resources that are both valuable (i.e. they exploit opportunities and/or neutralise threats in a firm's environment) and rare (i.e. competitors do not have access), and which successfully employs these resources in value-creating strategies, will have a competitive advantage (Barney 1991). Additionally, if the resources are hard to imitate or substitute, this competitive advantage can be sustained over time (Barney 1991). Barney (1991) gives three reasons for why a resource can be hard to substitute or imitate; (i) there are unique historical conditions tied to it, (ii) the link between the resource and the competitive advantage is causally ambiguous (e.g. tacit knowledge), or (iii) it is socially complex (e.g. culture, reputation).

Arguably, the non-substitutable criteria can be included in the imperfectly imitable criteria (Olavarrieta & Ellinger 1997), and instead, Barney later changes the last criteria to deal with how well the resource can be exploited by the organisation (Barney & Clark 2007). Thus, creating the VRIO framework (Valuable, Rare, Inimitable and Organisation). Regarding strategies and the imitability of resources, Barney and Clark (2007) further explain that:

> "just as resources only have the potential to create value through their impact on a firm's strategies, so too strategies only have the potential to be costly to imitate because of the

> nature of the resources that enable a firm to choose and implement its strategies". (Barney & Clark 2007, p. 226)

From this, it can be concluded that an organisation's strategies and resources are closely tied together. It is the development and utilisation of strategic resources that determine the organisations' performance in comparison to its competitors (Leask & Parnell 2005).

The resource-based theory is used to study a variety of topics, and not always with the focus on the competitive advantage from an economic performance perspective. Mohan and Potnis (2010), for example, use resource-based theory to investigate social enterprises and how resources can be deployed for "catalytic innovation instead of the traditional business objective of competitive advantage advocated in the resource-based theory literature" (p. 226). Moreover, the resource-based theory is used in many CBM studies (directly or indirectly), wherein it provides a framework for evaluating and studying the resources and capabilities that organisations require to grow and thrive in a circular economy (cf. Franco 2017; Linder & Williander 2017). Similarly, the resource-based theory is useful in understanding how companies can reconfigure their resource base to transition to a circular economy, or how different strategic resources affect the performance, perhaps even creating internal challenges in the implementation (Lahti, Wincent & Parida 2018). For example, Chiappetta Jabbour et al. (2019) study "green human resource management" and draw on resource-based theory and the ideas of Hart (1995), which stipulate that investing in sustainable practices can increase the organisation's profit (Hart & Dowell 2011), to demonstrate a positive correlation to the adoption of CBMs on a company level.

3.2 Dynamic Capabilities Theory

Teece, Pisano, and Shuen (1997) define dynamic capabilities as "the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments" (p. 516). The transition from a linear to a circular economy can be described as a changing environment wherein customer behaviour is largely unknown and product attributes undefined (Lahti, Wincent & Parida 2018). Therefore, entering a circular economy requires not only the development of new capabilities, but also the reorganisation of old capabilities (Bocken & Geradts 2020; Khan, Daddi & Iraldo 2020). Accordingly, the dynamic capabilities theory provides a useful lens for understanding the scalability of CBMs in the changing environment created by the transition between different economic systems.

While the resource-based theory provides a lens for understanding the business model's competitive advantage from a static perspective, the dynamic capabilities theory adds a lens for understanding the organisation's ability to cope with change. Teece, Pisano and Shuen (1997) and Eisenhardt and Martin (2000) argue that the competitive advantage that can be gained from strategic resources is often short lived in rapidly changing and global markets, and that these situations, therefore, is better understood through dynamic capabilities theory. Thus, in dynamic capabilities theory, sustainable competitive advantage is achieved by dynamic capabilities that extend or modify the current resource base in response to change, both internal as well as external to the company (Helfat et al. 2007), by "creating a series of temporary advantages" (Eisenhardt & Martin 2000, p. 1117). However, what constitutes a dynamic capability is vague, given that dynamic capabilities are embedded in the organisational processes and can be both structured abilities such as R&D processes but also less definable abilities such as entrepreneurial intuition (Teece 2018). To clarify this uncertainty, Teece (2007) proposes three classes of higher-level dynamic capabilities, namely, sensing, seizing, and reconfiguration. Further, microfoundations, which are defined as "distinct skills, processes, procedures, organisational structures, decision rules, and disciplines" (Teece 2007, p. 1319), are guided by the higher-level dynamic capabilities. In this thesis, focus is on the microfoundations within the three classes.

Sensing capabilities refer to how the organisation identifies and evaluates opportunities and threats, such as emerging technologies, customer needs, or new markets. This includes the process from discovering to calibrating an opportunity to fit with the overall value proposition and business model (Teece 2007). On a high level, sensing can involve how companies recognise business opportunities that emerge from the growing awareness of sustainability issues (Bocken & Geradts 2020) and understand how these issues could become future threats connected to resource scarcity (Hart & Dowell 2011). In the textile industry, Adam, Strähle and Freise (2018) find that a key sensing capability for fashion renting businesses is different forms of networking, wherein even competitors work as close collaborators for sensing opportunities for new offers.

Seizing explains how the organisation uses sensed opportunities and commercialises them into new products, processes, and services (Teece 2007). This includes the design and refinement of business models that exploit sensed opportunities; to this end, managerial or entrepreneurial capabilities are important microfoundations (Teece 2018). In a CBM context, refining the business model for easier collaboration is an important dynamic capability (Adam, Strähle & Freise 2018; Khan, Daddi & Iraldo 2020). Another seizing capability is how designers must shift their practices and routines, as well as mindset, to incorporate circular practices that allow for resource loops to operate more efficiently (Lopes de Sousa Jabbour et al. 2019).

Reconfiguring capabilities (sometimes referred to as transforming) describe how activities, resources, and the organisational structure are continuously reconfigured in response to market and technological change (Teece 2007). For the organisation to remain relevant in the market with consistent performance, these capabilities are vital (Helfat et al. 2007; Teece 2007). Learning and knowledge management are emphasised in the literature on dynamic capabilities. This is increasingly important when the organisation operates within a system or network wherein know-how from outside as well as inside the boundary of the organisation must be integrated (Teece 2007). Since CBMs often operate within complex value chains, it is unsurprising that different forms of microfoundations for learning are identified as important for CBMs. The sources for these learnings can be customers or other stakeholders in the network (Adam, Strähle & Freise 2018). The important thing to consider for reconfiguring is how to integrate this knowledge in the CBM (Khan, Daddi & Iraldo 2020).

4 Methodology

This section presents the methodology used in the research project. The first subsection describes the scientific approach that was adopted throughout the project. This is followed by a more detailed explanation of the different steps of the research design and how the empirical material is collected and analysed. Finally, the last subsection discusses how the research questions are answered using the findings in the appended papers, and reflections on the research quality.

4.1 Scientific approach

This research project has an exploratory purpose, wherein the aim is to generate a deeper understanding of CBMs scalability in the context of the fashion retail value chain. A qualitative approach is used owing to the exploratory purpose and the central role of context in understanding the the mechanisms that underlay CBM scalability. Qualitative research, in contrast to its quantitative counterpart, emphasises the context-bound meaning of the phenomenon in question rather than the measurable facts (Alvesson & Sköldberg 2008), and is more suited to clarify the social, cultural, and structural contexts associated with organisational problems and dilemmas (Miller, Dingwall & Murphy 2004). Additionally, the choice of a qualitative approach is in line with Alvesson and Kärreman (2007), who point out that organisations are social constructs. Moreover, similar to Alvesson and Kärreman (2007), the assumption is made that empirical material is "an artefact of interpretation" (Alvesson & Kärreman 2007, p. 1265) and fused with theory. Therefore, we can never remove ourselves, as researchers, from the process of knowledge generation, but must find ways to validate our findings through reflexivity in considering alternative interpretations and theories (Alvesson & Kärreman 2007; Alvesson & Sköldberg 2008).

The aim of this research project is to generate theoretical insights from the empirical material. Therefore, following the exploratory purpose, inductive and abductive modes of reasoning were used in the different papers. These modes of reasoning begin with empirical observations, which are then synthesised and analysed to draw general conclusions to theory. This is in contrast with the deductive mode, which starts from a theoretical assumption and proposals that are verified or falsified against empirical observations. (Alvesson & Sköldberg 2008)

Both inductive and abductive reasoning have strengths and weaknesses. Induction is quite straightforward as compared to abduction. If we see a pattern in our observations, we assume that this is an accurate representation and can be explained by a general rule. Thus, the general rule is a condensation of what is already present in our observations, and validity is given in the context of the empirical material (Alvesson & Sköldberg 2008). Therefore, generalisations must be made with moderation. This mode of reasoning is primarily used in Papers 2 and 3, wherein the aim is to inductively synthesise and draw conclusions from the empirical material, and the theoretical framework is only used to provide guidance.

Abduction differs from induction regarding how the researcher moves between empirical observations and theory in disciplined iterations (Alvesson & Kärreman 2007; Ketokivi & Choi 2014). Here, theory is used as an inspiration for explaining new or unexpected observations, and empirical observations simultaneously inspire theory development. Kovács, van Hoek and Spens (2005) refer to this as *theory matching*, which is described as a creative and iterative learning loop, wherein collection of empirical material and theory building are concurrent. As opposed to induction, abduction goes beyond the synthesis of empirical material to push new theory elaborations (Ketokivi & Choi 2014) by promoting new ideas and creativity (Reilly 2019). Thus, abduction exemplifies the notion that scientific advances are often the result of intuitive conceptual leaps (Kovács, van Hoek & Spens 2005; Reilly 2019). This

mode of reasoning is followed in Paper 1, wherein a theoretical framework and propositions are developed from elaboration of both empirical and theoretical insights.

The next subsection describes, in more detail, the design of the research project and the different steps that are taken to collect and analyse the empirical material.

4.2 Research design

This licentiate thesis is part of a larger project funded by Handelsbankens forskningsstiftelser (Jan Wallander and Tom Hedelius Foundation, Tore Browalds Foundation). The team comprises two senior researchers and one doctoral student. This part of the project, which constitutes the licentiate thesis, was planned and conducted separately, with supervision and guidance from the two senior researchers. The topic and a rough research design were defined prior to commencement of the work on the licentiate in January 2019. However, due to the exploratory nature of the research, the design was revised throughout the project. This was done, together with the supervisors, through emergence of new knowledge or interesting avenues that, consequently, shaped the next part of the process. Figure 4 shows the chronology of the research process through the data collection, analysis and writing, and presenting the work at conferences and in journal publications.

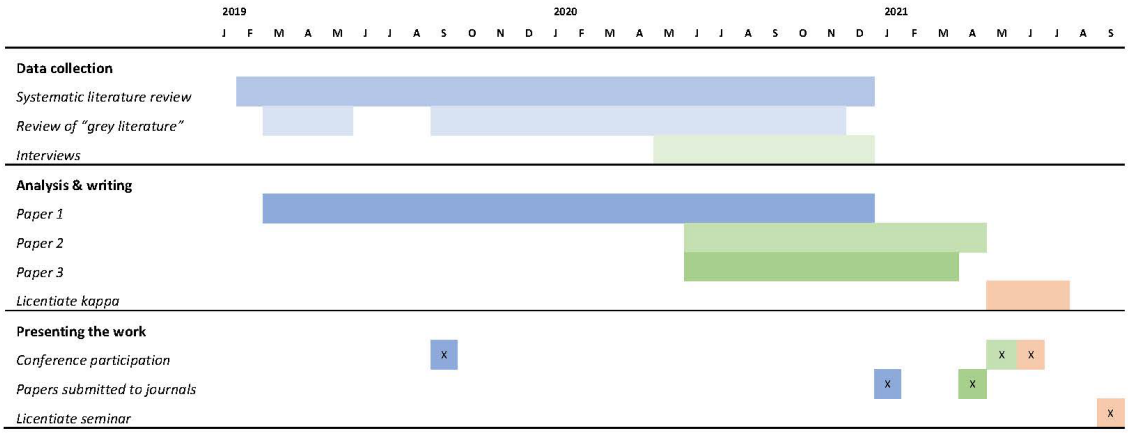

Figure 4. Research chronology

The research project was designed to follow two consecutive steps. The scope of the first step is to understand the general notion of business model scalability and how it relates to the context of CBM in fashion retail value chains. In the second step, the scope shifts to observing and exploring the empirical context through the two theoretical lenses. As information was gathered and knowledge accumulated, the research design was refined. For example, the reflections made during Step 1 influenced the decisions regarding the design of Step 2.

Figure 5 presents a flowchart of how the theoretical elaborations are built over time. Step 1 starts from a general idea based on prior knowledge (0). In this step, Paper 1 was designed to explore the notion of business model scalability and strategies used for scaling. Theory matching (2) between the synthesised findings of the systematic literature review (1) and extant literature then help develop a conceptual model (3), which is further elaborated on and applied to a CBM context (4). This is done through the review of goals and activities for increased scale of CBM initiatives, which companies in the fashion retail value chain had committed to.

Then, insights from Step 1 are used to develop a guiding framework (5) for Paper 2, and an interview guide that is used for gathering empirical material (8) in Step 2.

Additionally, Step 1 includes an integrative literature review (6), which leads to a guiding framework (7) for structuring the theoretical foundation of Paper 3. This review is performed by the first author of Paper 3 (Sandberg).

The main focus in Step 2 is the interviews, which were conducted during the period May-December 2020. The interviews (8) are analysed and separate findings and theoretical conclusions (9 and 10) are drawn depending on the perspectives of the different guiding frameworks (5 and 7).

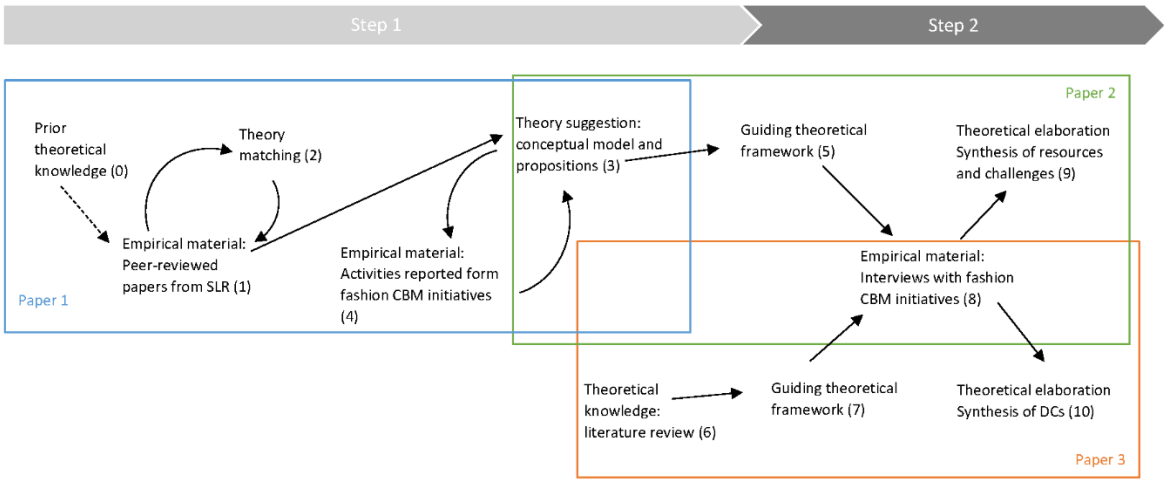

Figure 5. The research design

4.2.1 Collection of empirical material

The empirical material for the research project is collected from three sources. The first two are archival and the third is interview data. This section describes the empirical material as well as the methods used for both collecting and analysing it. Table 1 summarises the material and methods of each paper, and the appended papers provide additional information.

Table 1. Overview of methods for collecting and analysing empirical material

Paper	Empirical material	Method for collection	Method for analysis
Paper 1	Archival; peer-reviewed papers and book chapters & grey literature	Systematic literature review, Structured review	Qualitative thematic analysis
Paper 2	Interviews	Semi-structured interviews	Qualitative thematic analysis
Paper 3	Interviews	Semi-structured interviews	Qualitative thematic analysis

Systematic literature review: peer-reviewed papers and book chapters

A systematic literature review offers a method for "collective insights through theoretical synthesis into fields and sub-fields" (Tranfield, Denyer & Smart 2003, p. 220). Specifically, it describes a method for selecting and collecting academic literature, within a specific field or scope, which is both structured and transparent (Snyder 2019; Wolfswinkel, Furtmueller & Wilderom 2017). This method includes identifying relevant literature, assessing the material, and synthesising the available evidence using either a qualitative or quantitative approach such that the outcome is a robust, empirically derived answer to the proposed research question (Mallett, Hagen-Zanker, Slater & Duvendack 2012).

Paper 1 uses this method to collect peer-reviewed papers and book chapters that deal with the subject of business model scalability. The method of systematic literature review was chosen not only to get an overview of the topic but also to summarise the general knowledge of business model scalability strategies to build a conceptual model in a structured manner.

The process of designing the systematic literature review and deciding on inclusion criteria follow an iterative process, which, according to Wolfswinkel, Furtmueller and Wilderom (2017), is common practice. Our first idea entailed having a finer focus, wherein only articles relating to circular economy or CBM comprise the inclusion criteria; however, since this would include too few articles, a wider search was opted for, wherein literature from any field or industry dealing with business models and their ability to scale are included.

Review of grey literature

The second source of empirical material is the review of documents produced by industry collaborations and practitioners. These types of documents are sometimes referred to as "grey literature" (Adams, Smart & Huff 2017), which, in the interest of simplicity, is used hereafter.

There are several reasons for choosing this approach. In a relatively new and fast-changing field such as circular economy, documents produced by media or practitioners can be a good source for up-to-date information. Additionally, including sources other than peer-reviewed academic papers to contextualise findings or involve practitioners that you wish to engage within your research may be useful (Adams, Smart & Huff 2017). Moreover, management and organisational studies often combine grey literature with peer-reviewed papers in literature reviews since it allows for conclusions from one literature stream to supplement the other stream, which can create new insights (Adams, Smart & Huff 2017).

Reports from an industry-wide initiative on circular economy was used as a starting point, and other sources (e.g. when more information was required to understand the action) were systematically added to structure the collection of the grey literature. The initiative (i.e. 2020 Circular Fashion System Commitment) was chosen since its objective is aligned with the purpose of the study, that is, scaling of CBMs in the fashion retail value chain. The documents collected include (i) two status reports from the industry initiative that summarise the activities of numerous leading fashion retail brands' attempts to scale their CBM initiatives, and (ii) sustainability reports and press releases of the participating brands and collaborating partners.

Interviews

The third source of empirical material comprises semi-structured in-depth interviews. This method allows for flexibility and openness to serendipitous insights, which are pivotal to an exploratory study. For example, the interviewer can adapt the questions to the respondent and follow new insights that appear during the interview (Brinkmann & Kvale 2015). Thus, there is an element of reflexivity both in the interview conversation itself and the following analysis (Brinkmann & Kvale 2015; Miller & Glassner 2004). The interview guide (see Appendix A), which was built around central focus areas rather than specific questions, was developed over time as new themes and insights were discovered, as suggested by Brinkmann and Kvale (2015) and Gioia, Corley and Hamilton (2012). These new themes were then introduced in the following interviews.

Focus is on companies operating CBMs in the Swedish market. The reasons for this are twofold; convenient access (since we are situated in Sweden), and more importantly, because Sweden represents a well-developed market for fashion CBMs. From an industry perspective, Swedish fashion retailers have a high focus on sustainability issues and have been engaging in CBM activities, such as

garment collection, for a long time (Sandberg, Pal & Hemilä 2018; Sweet, Aflaki & Stalder 2019). From a policy perspective, the Swedish government has identified textiles as one of their focus areas in a national strategy for a circular economy (Regeringskansliet 2020). Moreover, the Swedish market is ranked high when it comes to an entrepreneurial culture and embracing innovations (World Economic Forum 2019), and Swedish consumers reportedly show an increased interest in a more sustainable lifestyle (Insight Intelligence 2020), which promotes CBMs.

In total, 16 interviews with representatives from 12 companies was conducted during the research project. Companies and respondents were selected by purposeful sampling for maximum variation (e.g. size, sales channels, years of operation, etc.). Four of the sample companies made significant changes to their CBM initiatives during the course of data collection. Consequently, follow-up interviews were added to capture new insights and experiences from these changes.

Since the interviews occurred during the COVID-19 pandemic, face-to-face meetings were not possible. Instead, all interviews were held using video conference software (Zoom). The interviews were 45 minutes long on average, and were recorded and transcribed.

Paper 3 uses all these interviews. However, since the scope of Paper 2 is narrower (i.e. specifically targeting resale business models), two of the companies are excluded from that study. For further information regarding the interviews, refer to Appendix B or the appended papers.

4.2.2 Analysis of empirical material

This thesis and the individual papers draw inspiration from different authors in the analysis of the empirical material. For example, Brinkmann and Kvale (2015) have been an important source of insight and inspiration when working with interview material and the Gioia method (Gioia, Corley & Hamilton 2012) for reporting and presenting the findings in Paper 1. However, the general method used for analysing and synthesising the material follows the principles of thematic analysis. Thematic analysis is a qualitative method for identifying, analysing, and reporting patterns of meaning (Braun & Clarke 2006). The aim is to reduce the data by identifying representative themes. Since this is a qualitative method, the theme is not quantifiable; the importance of a theme is instead decided by "whether it captures something important in relation to the overall research question" (Braun & Clarke 2006, p. 82). In line with the scientific approach described earlier in this section, the thematic analysis approach "emphasises the importance of the researchers' subjectivity as an analytic *resource*, and their reflexive engagement with theory, data and interpretation" (Braun & Clarke 2020, p. 3).

Identifying themes can follow two general approaches, namely, inductive and theoretical. Versions of both are used in the course of this research project (Braun & Clarke 2006). In the inductive approach, the themes are not decided beforehand, but are identified within and across the empirical material during the analysis. The theoretical approach instead starts with a clearer picture of what is sought in the data. This can, for example, be a guiding theoretical framework with a specific focus. Braun and Clarke (2006) refer to this approach as both theoretical and deductive. The term used here is theoretical because it better explains the process, which, in addition to deduction, includes inductive reasoning in linking the data and the theoretical framework. In Paper 3, the theoretical approach is used since the interest is to identify the microfoundations of dynamic capabilities as outlined in the guiding framework, and not to provide a rich description of the interview data in general. Nevertheless, in this research project, inductive reasoning helps identify the microfoundations within the themes of the framework.

In thematic analysis, as in many other forms of qualitative analysis, the creativity of the researcher plays an important role in analysing the material and reporting the findings through a comprehensive

understandable story (Vaismoradi, Jones, Turunen & Snelgrove 2016). Additionally, an advantage of thematic analysis is its flexibility (Braun & Clarke 2020). To guide researchers using thematic analysis, Braun and Clarke (2006) identify six phases that should be considered. In the first phase, the researchers must familiarise themselves with the material, which means reading and re-reading documents and transcripts several times. This process can begin during the data collection, especially if this is an interview situation (Brinkmann & Kvale 2015). This phase of the analysis is extremely time-consuming (Braun & Clarke 2006). For both the systematic literature review and the interviews, this is the most time-consuming part of the process. However, although time-consuming, activities such as transcribing interviews have been an important part of the process of familiarisation, and allowed for the analysis to start concurrent to converting the sound files into written text.

After the familiarisation phase, initial codes are generated across the data. This is followed by the third phase, which comprises the search for themes. Here, different techniques can be used to sort the initial codes into higher levels of themes. For the analysis in Paper 3, NVivo is used to both generate initial codes and sort them into themes. However, for the analysis in the other papers, excel sheets are used for the same purpose in addition to more hands-on techniques including manual sorting. For example, a technique that Ryan and Bernard (2003) refer to as "cutting and sorting" wherein the codes are written on pieces of paper and sorted into piles, was used.

The fourth phase entails reviewing the candidate themes to make sure that they are relevant. Some themes might be merged, while others might not be relevant at all and should be removed. The fifth phase involves defining and naming the themes to capture their essence. This includes structuring the themes and sub-categories to tell a comprehensive story. In the sixth phase, the analysis is presented and the report is written. This last phase represents an iterative process wherein writing the story sometimes reveals inconsistencies or insights that require going back to the source. Therefore, this entire process requires going back-and-forth between writing, re-reading the material, and updating the codes and themes.

4.3 Research quality

As mentioned previously, the research presented in this thesis is based on qualitative methods. Therefore, the discussion in this section is framed around two general criteria defined by Mays and Pope (2000) for assessing quality in qualitative research, namely, validity and relevance.

Validity

Research validity can be improved in several ways (Mays & Pope 2000). However, in this research, reflexivity and transparency are the main ways through which validity is improved. Respondent validation is sought during the interview by asking for clarifications and elaborations, and after the interview, wherein the respondents are asked to look at some of the findings to ensure they were quoted correctly. Additionally, at the end of the interview, the respondents are asked whether they feel that there is any aspect of CBM scalability that is missing from the interview. This question is important to make sure that significant perspectives from the respondents are not missed due to the interviewer's pre-existing notions.

As mentioned earlier in this section, reflexivity is crucial to ensuring validity since it is a way of questioning and reflecting on current and alternative interpretations (Alvesson & Kärreman 2007; Alvesson & Sköldberg 2008). Through reflexivity, the researcher develops sensitivity to how prior assumptions or experiences can shape the collected material (Mays & Pope 2000). In my case, my experience from working in the fashion retail value chain for several years is something that I reflect on in both the interview situations and the analysis of the different sources of empirical material.

Specifically, through self-reflection and conversations with my co-authors and peers, I reflect on whether my experience from working in the industry shapes the way I understand the respondent's answers, or how I construct my questions, and whether I am more susceptible to missing certain interpretations as compared to someone else with more research experience.

To ensure transparency in the research process, while maintaining the flexibility and creativity that qualitative research allows, it is important to show how the result evolves from the data and explain the methods applied (Braun & Clarke 2006; Mays & Pope 2000). This enables other researchers reading the report to judge whether the interpretation makes sense and is adequately supported by the data. Therefore, following Braun and Clarke (2006), I incorporate representative quotes and extracts in my analysis, and where this is not possible (e.g. due to word limitations), quotes and coding schemes are provided in appendices or as supplementary files. Even though the emphasis is on presenting a convincing story that includes examples from the empirical material, taking inspiration from the data structure of Gioia, Corley and Hamilton (2012) facilitates showing how initial codes link to the final themes.

Relevance

Relevance relates to the primary reason for doing the research. Mays and Pope (2000) write that research "can be relevant if it either adds to knowledge or increases the confidence with which existing knowledge is regarded" (p. 52). Additionally, in an article titled "Do we have something to say?" Alvesson (2012) addresses the topic of relevance and emphasises the importance of engaging in research relevant to practitioners outside one's own research community. In the corresponding article, Alvesson writes, "much more of the work we do should clearly bear in mind the relevance of groups outside the (sub-)tribe" (p. 81). Although the present research is packaged in scholarly texts and academic papers, one of its fundamental aims is to provide guidance to practitioners as well. This is reflected in the practical and theoretical contributions that are discussed in Section 7.

Moreover, related to relevance is the notion of transferability, which refers to whether the findings are generalisable beyond the original context (Mays & Pope 2000). The sampling strategy that is used to select which companies to interview for this study contributes to the generalisability of the findings. By purposefully seeking out companies of different sizes, and with different business model designs, the aggregated knowledge generated is more generalisable than it would be with a narrower inclusion criteria regarding the companies. Further, although the findings cannot describe all CBMs, there are lessons to be learned, which are applicable to CBMs in other contexts. Through this research, I hope to inspire and give adequate explanations for my findings and conclusions to enable others to use and build on them in ways they find useful.

5 Summary of appended papers

In a compilation thesis such as this, one of the great challenges is to bring together ideas from different papers and clarify the connections between them. Accordingly, the purpose of this section is to summarise the appended papers and explain how their different ideas and findings contribute to the thesis as a whole. Table 2 gives an overview of the appended papers and how they relate to the research questions.

Table 2. Overview of appended papers

Paper	Purpose	Empirical material	Relevant RQ
Paper 1	Explores the main strategic approaches to scale business models, and how these approaches can be applied to CBMs in the fashion retail value chain	Archival; peer-reviewed papers, book chapters, and grey literature	RQ1
Paper 2	Explores the challenges and related strategic resources regarding scaling CBMs	Interviews	RQ2
Paper 3	Explores the microfoundations of dynamic capabilities involved in the scaling of CBM initiatives	Interviews	RQ1, RQ2

5.1 Paper 1

Authors and title

Hultberg, E. & Pal, R. Lessons on business model scalability for circular economy in the fashion retail value chain: towards a conceptual model

Status of manuscript

This paper is published in *Sustainable Production and Consumption,* vol. 28, pp. 686-698. doi: https://doi.org/10.1016/j.spc.2021.06.033. An earlier version of this paper has been presented at the 3rd Conference on Product Lifetimes and the Environment (PLATE) 2019 in Berlin, Germany, 19 September 2019.

Purpose and overview

The purpose of this paper is to summarise and condense the literature on business model scalability to gain a better understanding of the types of strategies discussed in the general business model discourse and their relation to CBMs in the context of fashion retail value chains. To do this, a systematic literature review of peer-reviewed papers and book chapters concerning business model scalability is carried out. Additionally, the findings from the systematic literature review are complemented and contextualised with respect to CBMs in the fashion retail value chain. This is done by analysing goals of 76 fashion retail companies regarding how to scale their CBM initiatives.

Main findings and relation to the thesis

Based on the systematic literature review, a conceptual model is developed, which shows four strategic approaches used for business model scaling; (i) do it yourself, (ii) absorb external ideas and opportunities, (iii) divide the labour, and (iv) create together. This model draws on two thematic orientations that are inspired by innovation literature: efficiency-centred vs. adaptability-centred strategies (e.g. Miller 1996; Zott & Amit 2007), and open vs. closed business model strategies (e.g. Chesbrough 2003; Rohrbeck, Konnertz & Knab 2013).

Additionally, the model is used to illustrate how the different strategic approaches are applied for scaling CBMs in a fashion retail context. This results in propositions describing how the different

strategic approaches support the scalability of CBMs in the fashion retail value chain. For instance, in terms of efficiency, organisations leverage resources from their existing conventional business model for efficient scaling of their CBM initiative; furthermore, they use strategies for dividing the labour by taking advantage of partnerships that facilitate access to complementary resources. In terms of adaptability, organisations run experiments and pilots within the boundary of their organisations, and engage in collaborative networks for industry-wide learnings and change.

Figure 6 shows the model, which, together with the propositions, can be seen as a step towards a more comprehensive tool that can help practitioners analyse strategies for scaling their CBMs.

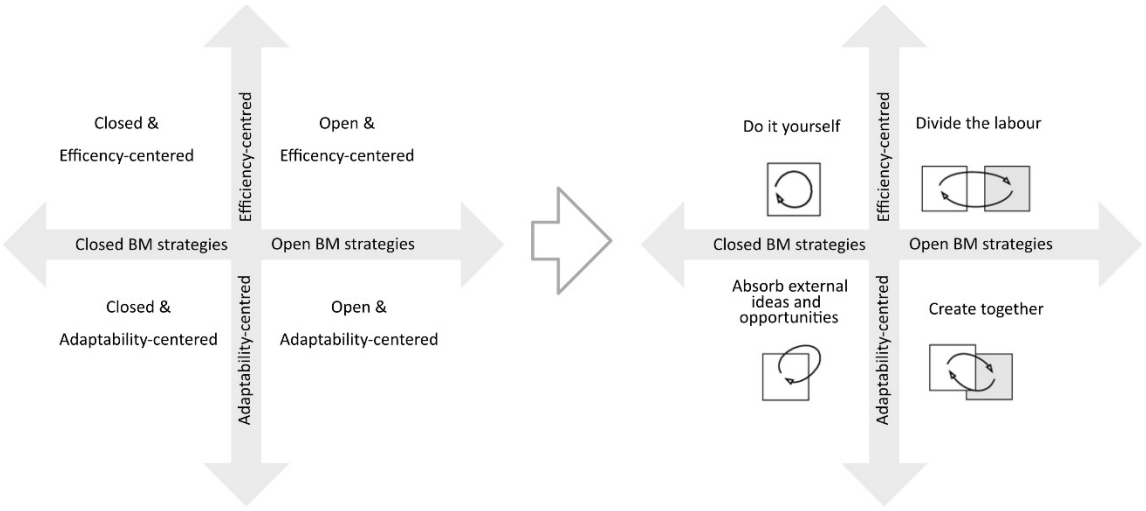

Figure 6. The conceptual model developed in Paper 1 (reproduced from Paper 1).

In conclusion, Paper 1 focuses on building a general understanding of CBM scalability by exploring strategic approaches to achieve scalability. Therefore, it complements the purpose of the thesis by contributing to the understanding of scalability in the context of CBM, and augmenting the answer to RQ1 by developing four strategic approaches as well as illustrating their application in the context of CBMs in the fashion retail value chain. Furthermore, insights from this paper are used as a foundation for the theoretical framework in Paper 2.

Author's contribution to the paper

The first author (Hultberg) contributes to this paper by collecting and analysing the data. Additionally, the first author (Hultberg) has written the majority of the manuscript, with support and supervision from the second author (Pal). The conceptualisation, as well as the methodology of the paper, was developed jointly.

5.2 Paper 2

Authors and title

Hultberg, E. & Pal, R. Scaling resale-based circular business models: A study of Swedish fashion resellers

Status of manuscript

This paper has been presented at the 4th Conference on Product Lifetimes and the Environment (PLATE) 2021 Virtual Conference, 27 May 2021.

Purpose and overview

The purpose of this paper is to explore challenges and strategic resources for scaling CBMs in the fashion retail value chain. To guide the study, a framework building on the four classes of resources suggested by Barney (Barney 1991; Barney & Clark 2007) is used; these classes include the following aspects: (i) physical (e.g. technology, equipment, location, and access to raw material), (ii) human (e.g. training, experience, and relationships of individual managers and staff), (iii) organisational (e.g. control and coordination systems, planning, and informal business relations within and between organisations), and (iv) financial.

This framework is combined with the concept of efficiency and novelty in business model design elements from innovation literature (e.g. Miller 1996; Zott & Amit 2007). Although Paper 1 introduces the efficiency-novelty/adaptability dimension, the relationship to business model scaling is further explored in this paper.

Main findings and relation to the thesis

In this paper, two main areas of challenges that affect the scalability of the CBMs are defined. The first is associated with the lack of efficiency due to large volumes of unique garments and accessories, which leads to operational complexity and high labour costs. This can be mitigated by strategic resources that help simplify and automate key tasks. In this study, the strategic resources that the respondents allude to in terms of efficiency include adapted or integrated IT systems, the brick-and-mortar store (as it removed a lot of the complexity associated with other sales channels), customers or the brand's existing staff who could be leveraged to do some of the work for the CBM initiative, and clear and standardised routines such as in trend and sales analytics.

The second area of challenges is associated with the novelty of the business model design and describes how there is a lack of out-of-the-box solutions that support the internal processes of the organisation. The organisations, therefore, need to spend time and resources on building IT systems and developing new knowledge and processes. Here, the respondents discuss strategic resources such as the assortment of products and location of stores, which must attract customers by appealing to their sense of fashion as opposed to explicitly promoting second-hand products', staff that understand the resale-based model and how to develop it, customer community, and new metrics for measuring performance across the triple bottom line.

The main findings of this paper contribute to answering RQ2 by describing the challenges related to scaling resale-based CBMs in the fashion retail value chain, and the strategic resources associated with overcoming these challenges. Furthermore, it is notable that it builds on the findings of Paper 1 by using the idea of efficiency and novelty/adaptability to guide and structure the analysis.

Author's contribution to the paper

The first author (Hultberg) contributes to the conceptualisation, collection, and analysis of the data in this paper, as well as writing the majority of the manuscript. The second author (Pal) provided supervision in the form of review and suggestions throughout the process.

5.3 Paper 3

Authors and title

Sandberg, E. & **Hultberg, E.** Dynamic capabilities for scaling of circular business model initiatives in fashion industry

Status of manuscript

The manuscript is under review at an international peer-reviewed journal.

Purpose and overview

The purpose of Paper 3 is to explore the microfoundations of the dynamic capabilities involved in the scaling of CBM initiatives. In this paper, a framework that combines the dynamic capabilities theory with scaling logics from social innovation literature is presented. The framework uses the three dynamic capability classes of sensing, seizing, and reconfiguring (e.g. Teece 2007), and the three scaling logics of scaling out, scaling up, and scaling deep (e.g. Moore, Riddell & Vocisano 2015) to create a guide to explore the microfoundations of dynamic capabilities. In this context, scaling out refers to how CBMs seek to scale their operation by reaching out to a larger amount of people by, for example, geographical expansion and financial turnover. Scaling up refers to how CBMs can remove barriers to scale by influencing policy change. Lastly, scaling deep refers to changing the condition for scale by impacting people's values and beliefs. Thus, scaling up and scaling deep mainly, but not exclusively, refer to activities targeting changes to large systems, which is beyond the bounds of the CBM initiative, while the scaling out logic is more directed towards CBMs' inner operations.

This framework is used for analysing interview material from Swedish retail fashion companies involved in CBM initiatives.

Main findings and relation to the thesis

This paper contributes to the thesis and RQ2 by exploring the capabilities, in the form of microfoundations of dynamic capabilities, required for scaling CBMs in the fashion retail value chain. The findings show that these microfoundations can be found across the three scaling logics. However, we find more evidence in relation to scaling out as compared to the other two scaling logics (i.e. scaling up and scaling deep). Table 3 summarises these findings.

The microfoundations of dynamic capabilities for scaling out are primarily involved in improving the efficiency of the CBM's operations. In line with the findings of Paper 2, we see that reducing complexity and labour cost is vital to achieving scale. This relates to both internal activities and external partnerships with organisations that complement CBM operations.

As can be seen in Table 3, only a few companies mention being actively involved in scaling up by influencing laws and regulations, which could change the conditions for CBMs' expansion. Those who mention activities of this type profess to rely on networking. The networks start as informal connections between individuals at different companies; however, to seize the opportunity and influence policy, the networks are formalised.

The logic of scaling deep concerns microfoundations that can be used to impact the norms and cultures of potential customers as well as staff. This relates to the process of mainstreaming. These microfoundations range from sensing opportunities through personal interest and engagement in environmental and social issues to changing how an offer is perceived, and then integrating the CBM in a general strategy for growth.

The findings of this paper support the broader notion of scale in Paper 1. Thus, it contributes to answering RQ1 by describing scalability strategies for CBM, which go beyond the conventional notion of business model scalability by including activities that mostly aim at affecting conditions outside the boundaries of the organisation.

Table 3. Summary of microfoundations of dynamic capabilities involved in circular business model scaling (reproduced from Paper 3)[1]

	Scaling out	Scaling up	Scaling deep
Sensing	Coordinating internal and external input - *Evidence from company: A, B, D, E, F, H, J, K, L* Openness towards external collaborations - *Evidence from company: B, C, G, H*	Networking - *Evidence from company: B, C, D, E, K*	Engagement in environmental and social issues - *Evidence from company: A, G, H, K, L*
Seizing	Partnering - *Evidence from company: A, B, C, D, E, F, G, H, J, K, L* Increasing efficiency in operations - *Evidence from company: A, B, C, E, F, G, I, J, K, L* Piloting - *Evidence from company: B, C, D, E, F, G, I, K, L*	Network governance and formalisation - *Evidence from company: C, D, K*	Changing the narrative of used - *Evidence from company: A, B, C, D, E, F, G, I, J, K, L* Lowering the threshold for participation - *Evidence from company: A, B, C, D, E, F, G, H, I, J, K, L*
Reconfiguring	Knowledge transferring - *Evidence from company: A, C, F, G, H, I, J, K, L*		Integration of CBMs in general growth strategies - *Evidence from company: A, B, E*

Author's contribution to the paper

The conceptualisation of the paper is developed by the first author (Sandberg), who additionally supervised and reviewed the manuscript. The second author (Hultberg) planned and performed the data collection and analysis of the empirical material. The methodology and writing of the original draft were done jointly, wherein the first author (Sandberg) focused on the theoretical sections and the second author (Hultberg) on the empirical sections.

5.4 The interrelatedness of appended papers

All the appended papers cover the phenomenon of CBM scalability in fashion retail value chains from different perspectives and use different methods. Due to this, and the fact that they are designed to be part of the same research project, their findings are directly or indirectly interconnected. Table 4 summarises these interconnections and relations to the research questions.

[1] Note: company reference can be found in Appendix B.

Table 4. The interrelatedness of the appended papers

	Paper 1	**Paper 2**
Paper 2	Paper 2 builds on insights from Paper 1. They both deal with the idea of efficiency and novelty/adaptability of the business model design as something that influences CBM scalability.	
Paper 3	Paper 1 and Paper 3 both contribute to RQ1 and a broadened notion of what it means for a CBM to be scalable. - Paper 1 identifies four strategic approaches for scalability, which allows for a wider definition that includes, for example, boundary spanning scaling as well as adapting to new contexts. - Paper 3 draws from social innovation literature to elaborate on how CBMs can achieve scale by impacting policy and culture in addition to reaching more people and increased returns.	Paper 2 and Paper 3 both contribute to RQ2 and the identification of resources and capabilities crucial for the scalability of CBMs. Both papers build on the same empirical material but analyse it with different theoretical frameworks. - Paper 2 describes strategic resources associated with overcoming challenges related to scaling resale-based CBMs in the fashion retail value chain. - Paper 3 describes the dynamic capabilities that organisations require to sense, seize, and reconfigure for achieving scale.

6 Analysis and discussion

The answers to the research questions present the findings of the appended papers as seen through a higher level of reflexive analysis (See Alvesson & Sköldberg 2008). To answer the research questions, the findings from the papers are compared and intertwined to create a cohesive story. Table 5 summarises the contributions of the appended papers to the two research questions.

Table 5. Answering the research questions

RQ1	**Paper 1**	**Paper 3**

How can scalability be described in a circular business model context?	- Identifies four strategic approaches for business model scalability.
	  - Do it yourself: closed and efficiency-centred
	  - Absorb external ideas and opportunities: open and efficiency-centred
	  - Divide the labour: closed and efficiency-centred
	  - Create together: open and efficiency-centred
	- Finds that scaling a business model is not always restricted to the scaling of an organisation.
		- Draws on the framework for scaling up, scaling out, and scaling deep and finds that CBMs are involved in activities for scaling, which go beyond the CBM and organisation.

RQ2	**Paper 2**	**Paper 3**
How can resources and capabilities contribute to solving key challenges for scaling CBMs in the fashion retail value chain?	- Identifies and categorises challenges as stemming from either efficiency or novelty elements of the business model design. - Identifies strategic resources that contribute to overcoming such challenges.	- Complements the challenges related to novelty by adding the perspective of the need to, and difficulty in, exercising influence to create industry-wide change. - Identifies microfoundations of dynamic capabilities that contribute to CBM scalability

6.1 How can scalability be described in a circular business model context? (RQ1)

To answer the question of how scalability can be described in a CBM context, I draw on the elaborations of business model scalability from Section 2, the conceptual model and corresponding contextualisation from Paper 1, and the analysis of microfoundations for scaling across the three scaling logics in Paper 3. When combining these sources, three perspectives appear to evidently influence how business model scalability is described. These relate to the business model's efficiency, adaptability, and altruism. These perspectives are discussed in the following subsections.

6.1.1 Scalability through increased efficiency

Based on the systematic literature review in Paper 1, four strategic approaches for business model scalability are identified. Two of these refer to scaling by finding efficient solutions in the form of increased standardisation and automation of tasks, either internally in the organisation or externally in boundary-spanning activities with partners and collaborative networks. That is, efficiency can be sought through a closed business model approach or an open business model approach wherein collaborations and networks are leveraged.

For example, on the one hand, Winter and Szulanski (2001) discuss how the central administration must have the ability to not only identify the key elements that need to be packaged and replicated, but also deepen the understanding of those key elements and fine-tune the process with each replication to enable the business models scalability through replication. Additionally, the ability to use technology for automated routines and tasks increases the scalability since it removes administrative costs while supporting more users and transactions (Kohler 2018; Mohan & Potnis 2010). On the other hand, as opposed to investing in and developing internal resources, an open business model is scalable because of the collaborations and partnerships therein (Acquier, Carbone & Massé 2019; Ćwiklicki 2019; Nielsen & Lund 2018; Shrimali & Sen 2020). Piggybacking on strategic partners for easy access to new markets (Kohler 2018), pooling resources in collaborative networks for economies of scale (Esposito, Lenssen, Kapoor & Goyal 2012), or access to local knowledge (Bocken, Fil & Prabhu 2016; Walske & Tyson 2015) are some examples. Thus, the elimination of unnecessary costs and actions and simplification and standardisation of processes, internally as well as in collaborations, are ways to facilitate efficient growth, which increases the business model's scalability.

Moreover, this can be seen in practice. Similar to the study of replication by Winter and Szulanski (2001), Paper 3 finds that as the organisation grows, it needs clear processes for handling larger areas and an increasing number of employees. This is not only for managing the process of scaling, but also to make sure that the concept is kept intact through this growth. Additionally, scalability is found to be aided by increasing the efficiency of the internal operations by activities, such as simplification and standardisation, as well as leveraging the work of customers. However, in Paper 1, wherein activities of CBM initiatives run by otherwise "linear" companies are studied, efficiency is observed in how these companies develop strategies for piggybacking on their pre-existing resources. For example, using their pre-existing chain of stores to scale their take-back schemes; in a way partnering with themselves.

Nevertheless, other partnerships can provide similar opportunities for efficiency. In Paper 3, partnering, which is one of the microfoundations of dynamic capabilities identified for scaling out, is described as an efficient way to reach an increasing number of customers by, for example, distribution deals with more well-known brands and retailers or partnerships with IT solution providers. For instance, when describing why they had decided to make one of their CBM initiatives a partnership with another organisation instead of managing it themselves, the circular business developer at Company E said, "building something fully integrated by yourself requires a lot of development resources, but imagine what can be done with an external partner?". This is followed by the explanation that the partnership allowed them to implement the initiative faster and at a larger scale since they had access to an already developed concept. Furthermore, this is observed in the analysis of CBM initiatives in Paper 1 as well. Different collaborations and partnerships are identified, wherein the fashion brand can gain access to capabilities and resources and simultaneously avoid large investments. An example of this is how some fashion brands establish partnerships with professional sorting companies or charities instead of developing the capability in-house. These partnerships are found to lead to more cost-efficient processes and economies of scale since they provide access to complementary resources and capabilities (Pal 2017).

Therefore, efficiency in the business model design is an important element of scalability. The definition of scalability itself alludes to an embedded notion of efficiency in growth. It does not describe the general growth of a business model, but rather a growth that "increases revenues faster than the corresponding cost base" (Stampfl, Prügl & Osterloh 2013), or does not allow quality to suffer. Accordingly, it speaks to one of the fundamental practices of CBMs, that is, resource-efficiency. However, as Bocken et al. (2016) point out, resource efficiency is successfully applied to linear business models as well, and can easily lead to increased sales that cancel out the resources saved. Fast fashion

is a good example of how an efficient business model does not always lead to the use of fewer resources on the whole. Therefore, efficient scaling can be viewed as contradictory to the value proposition of CBMs, unless it is combined with the logic of either closing or slowing resource loops.

Nevertheless, efficiency is a natural part of how scalability can be described in a CBM context. However, for CBMs to uphold their value propositions and contribute to the triple bottom line, scalability must include the displacing of linear consumption with practices that build on closing and slowing resource loops.

6.1.2 Scalability through flexibility and adaptability

Efficiency can only partly explain what it means for a CBM to be scalable. Of the four strategic approaches for business model scalability that are identified in Paper 1, two refer to efficiency and the other two refer to adaptability. The adaptability-centred approaches recognise that adaptability and flexibility in the business model influence its scalability. As is the case with the efficiency-centred approaches, this can refer to open as well as closed business model approaches.

Adaptability refers to the business model's ability to identify and adapt to different conditions and new opportunities. For example, this can include how replicating with respect to a new market requires the business model to be flexible and adapt to other cultures and regulations (Goyal, Sergi & Kapoor 2017; Mohan & Potnis 2010), or how taking advantage of new opportunities, like emerging technology, can can improve the business model's scalability (Biloshapka & Osiyevskyy 2018; Bocken, Fil & Prabhu 2016; Yoho, Ford, Edvardsson & Dahlinger 2018). Accordingly, Dobson, Boone, Andries and Daou (2018) find that having a flexible business model can be beneficial when scaling, especially in uncertain environments. They propose an approach wherein experimentation is built into the business model and each new replication is a way to adapt the business model and generate new learnings.

Additionally, collaborations with either strategic partners or the community can contribute to the business model's adaptability. For example, Nielsen and Lund (2018) and Zhang, Lichtenstein and Gander (2015) suggest aligning business models' value proposition with customers and competitors and inviting them to develop complementing products or participate in the development process. This is a way to develop opportunities and create increased informational returns. Palomares-Aguirre, Barnett, Layrisse and Husted (2018) find that engaging the community to make adaptions based on their local customs and habits can help the business model to scale. The engagement creates free marketing in the form of word-of-mouth, but more importantly, it creates a lasting systemic change.

The scaling deep logic in Paper 3 is exemplified by adapting to a community, and concurrently influencing that community. Scaling deep is about impacting people´s values and beliefs for a lasting change; in this context, it refers to how fashion retail consumption can be shifted from linear to circular practices. Paper 3 identifies microfoundations of dynamic capabilities that aim to do this by normalising the circular consumption promoted by CBMs. Here, it is not about adapting to a new geographical market, but finding ways to adapt to the current market without compromising the core values of the CBM. For example, the co-founder of Company H discusses how they are able to scale their operations by collaborating with fast fashion brands to make their second-hand and re-designed offers available in the collaborators' stores. Creating a seamless fit requires adaptation from both companies such that a new customer group, which otherwise would not look for second-hand garments, is obtained. It is notable that in adaptation and normalisation, there is an attempt to influence the current market to become more lucrative for CBMs.

Further, it is noteworthy that as the business model grows, it might need to adapt to deal with changes and new challenges that come with a larger size. Thus, a scalable business model requires the flexibility

to adapt to the corresponding organisation's growth. This relates to the dynamic capability of reconfiguring, which is primarily discussed in Paper 3 in the form of clear routines for knowledge transfer and the integration of CBM opportunities in growth strategies.

Thus, flexibility in the business model allows it to adapt to new opportunities, changing conditions, and size, which facilitates scalability. The transition to a circular economy can in itself represent a novel market, wherein the corresponding rules and logics remain undiscovered. Therefore, a business model that can adapt and change with the growing market and new opportunities in real time, has a better chance at growing with that market. Accordingly, adaptability and efficiency are important perspectives of scalability in a CBM context.

6.1.3 Scalability through altruism

In addition to the perspectives of efficiency and adaptability in business model scalability, there is evidence of a third perspective. For the purposes of this thesis, I refer to it as altruism since it is about helping others as much as helping the organisation.

In the systematic literature review in Paper 1, we find that business model scalability is not always discussed in terms of aiming to scale an organisation, but rather scaling the impact of the business model. Thus, the notion of business model scalability transcends the focal organisation. To use a quote from Blundel and Lyon (2015), "the opportunities for scaling are not necessarily restricted to organisational growth, and the social and environmental goals of each social venture are being met when other organisations can deliver the replicated services to a different set of beneficiaries" (p. 93). Acquier, Carbone and Massé (2019) refer to a version of this as a "free-franchising model" and suggest it as a strategy for scaling community-based initiatives that otherwise struggle to scale globally due to high resource needs. Accordingly, in order to scale, the organisation makes the business model available for others to copy to their local market.

Although the respondents in Paper 3 do not refer to this rather extreme view of business model scalability, a version of altruism is evident here as well. For example, several respondents refer to wanting to change the industry, and in addition to simply expanding their own business, they aim to change the overall conditions for CBMs. This may be achieved through changing customers' behaviour and engaging others to follow, or by changing policy. Regarding policy change (e.g. the logic of scaling up), the outcome is a system change that not only affects one specific business model, but also several other business models and perhaps even the development of new business models. In Paper 3, we find that some companies, which are technically competitors, create a network for engaging for-profit CBMs. The aim is not only to exert pressure for regulatory change, but also to learn from each other and help each other grow. The owner of Company K, for example, says that they have helped other entrepreneurs with their CBMs and are "not afraid of competition". Instead, helping other organisations to survive and scale can be beneficial in the long run since it helps to establish a market and normalise circular consumption. Everyone who wants to be involved with this is, therefore, welcomed.

In the analysis of CBM initiatives in Paper 1, the companies engage in changing the conditions for CBM scaling in general and not just for their own purposes. For example, this is observable in collaborative projects that aim for solutions that help overcome industry bottlenecks, such as technologies for large-scale recycling, by sharing experiences and know-how, which is the aim of many industry initiatives. Therefore, helping others can be a way to help oneself since it might contribute to the growth of the overall market . Furthermore, it may be the case that for one type of CBM to scale, it needs other CBMs for support. A second-hand store or a renting service might, for example, find it easier to expand if it has a skilled repair service close by to help with repairs. Accordingly, the business developer for

Company F indicates that a renting service requires access to a second-hand store as an outlet for garments that cannot be rented out anymore.

Since the market for circular consumption in the fashion retail value chain is still under development and, as such, rather limited, growing the market may be just as important for scaling as activities that aim to grow the organisation. Thus, the scalability of CBMs can be described in terms of their ability to influence a more general market growth through altruistic activities such as supporting and collaborating with competitors or influencing customer values and behaviours.

6.2 How can resources and capabilities contribute to solving key challenges for scaling CBMs in the fashion retail value chain? (RQ2)

To answer RQ2, I draw on the findings of Papers 2 and 3. Paper 2 uses the business model design themes developed by Zott and Amit (2007) to provide a basis for understanding the challenges regarding CBMs scalability. These two themes are chosen since they represent fundamental configurations for value creation (Kulins, Leonardy & Weber 2016; Zott & Amit 2007). In addition, they follow from the dimensions of efficiency and adaptability in strategic approaches to scale found in Paper 1. Efficiency as a perspective of scaling is reflected in the efficiency-centred business model. Flexibility and adaptability are reflected in change, which leads to novelty in business model design elements.

However, on combining the findings of Paper 2 and Paper 3, the challenges related to the novelty theme are found to be of two different characteristics, and therefore, split in two; resulting in three areas of challenges. Additionally, these three areas capture the perspective of exercising influence to create change, which is part of the framework in Paper 3. That is, the scaling logics of scaling up (i.e. impacting policy change) and scaling deep (i.e. impacting peoples values and beliefs) propose that to scale, the business model must overcome the challenges associated with novelty and dissonance between the CBMs' value proposition and policy or people's beliefs. Therefore, it is important to have not only the strategic resources that create an advantage for the organisation itself, which is the case in a resource-based view, but also the capabilities to create a lasting change in the market outside the organisation.

The following subsection provides a more detailed description of these three challenging areas. This is followed by a discussion of different strategic resources and capabilities that contribute to solving one or several of these challenges.

6.2.1 Three challenging areas

The first challenging area concerns the inefficiency of the business model and the resources and capabilities related to increasing the efficiency and making it more scalable. This challenge arises due to the operational complexity and high labour costs that come with handling large volumes of unique garments and accessories (i.e. in terms of size, condition, quality, and style). Following the definition of the efficiency-centred business model design by Zott and Amit (2007), this area focuses on the business model and not all aspects of how an organisation can strive for efficiency. Hence, this challenge stems from the need to simplify and standardise both internal and boundary-spanning activities to reduce complexity and enable better information flow among stakeholders. Consequently, the resources and capabilities that can contribute to overcoming this challenge of inefficiency in the business model are those that reduce time or costs in transactions or simply eliminate the need for time-consuming transactions, in other words, resources and capabilities that reduce complexity and simplify processes.

The second challenging area deals with the novelty of CBMs in the fashion retail value chain and how new ways of conducting business create challenges in the form of a lack of know-how and need for out-of-the-box solutions. For instance, this refers to how the logic behind conventional retailing is different from that of the resale model and require different competencies. However, people with experience of resale are not available at scale in the job market, and competencies and skills specific for CBMs are not often part of the curriculum in fashion and business education. Additionally, it refers to the difficulty in finding IT systems, such as different cash-register systems, and order management systems that can deal with the novel product flows in CBMs. Instead, the respondents report that they need to develop both skills and IT systems themselves, or in collaborations with other stakeholders. Consequently, the companies need to spend a lot of time and resources on these developments, which often has a negative impact on the rate at which a CBM can scale. Therefore, having capabilities that allow for developing or reconfiguring resources that better fit the value proposition of CBMs, as well as access to these strategic resources is important for the scalability of the CBM.

The third challenging area deals with the novelty aspect of CBMs as well, but from the perspective of how unfamiliarity with the concept can lead to challenges in the form of scepticism from customers and other stakeholders, as well as dissonance with current practices and policy. Here, the respondents not only refer to customers that might have preconceived notions about, for example, the re-use of used clothes being un-hygienic, but also landlords who do not want second-hand stores in their shopping malls since they doubt the profitability, and possibly, do not find it fashionable enough. Furthermore, the unfamiliarity of the concept internally can lead to challenges in the organisation. In Paper 2, the lack of accepted metrics for comparing CBMs to linear models is, for example, identified as a challenge regarding accessing internal resources and funds. Therefore, the CBM may need resources and capabilities that can contribute to changing the perception of CBMs and circular consumption practices both internally and externally. This includes influencing policymakers to create conditions that support scale.

6.2.2 Resources and capabilities that contribute to solving the identified challenges

The brick-and-mortar store

Interestingly, the brick-and-mortar store is described by the interviewees as a strategic resource regarding scalability through reducing complexity. Having a brick-and-mortar store leads to an increase in volumes of garments sold without increasing the costs of operation as compared to re-commerce. This is because the number of steps required to make a garment available on re-commerce is often higher and requires more detailed handling of each product. Potential customers must be provided with information on the garments' condition, size, and style, which requires descriptions both in the form of text and pictures. To provide the correct size indication, garments must sometimes be measured. In the brick-and-mortar store, the customer can find this information themselves by inspecting the garment and trying it on for size. Additionally, one of the respondents refers to the fact that customers get a quicker overview of the offer in the brick-and-mortar store and can easily find items that they are not actively looking for. Whereas in re-commerce, the customer needs to be quite dedicated to have the patience to scroll through page after page to see the entire catalogue. This is somewhat paradoxical since digital business models are generally seen as more scalable (Hallowell 2001; Sjödin, Parida, Kohtamaki & Wincent 2020), which is noted in other studies as well. For example, Hallowell (2001) finds that e-commerce companies working with products with a low degree of standardisation have limited scalability since their service delivery system is less subject to economies of scale, and thus, requires more human interaction.

Information technology systems

Integrated or adapted IT systems are identified as a resource that affects business models' efficiency, and thus, the scalability. These systems allow the organisation to automate some of the operational tasks and create data that can be analysed to simplify the process of buying. One of the respondents (creative director and co-founder, Company H) refers to the different IT systems as one of the key resources for facilitating scalability. This resource allows Company H to collect data from sales on an aggregated level and analyse it to make trend and sales forecasts which are used to communicate what to buy next. Without an integrated IT system, this would be impossible at scale. Company K is another such example. Starting out, the IT system for the cash register could not support the commission-based model they were running. This means that they were spending a lot of time on keeping track of garments, who the seller was, how long garments had been in the store, etc. While this might be feasible in one store, a precondition for pursuing scaling through franchising is to be able to offer a workable IT system to the franchisees. Accordingly, other studies find that the use of technology can reduce the complexity and costs when scaling. For example, Shrimali and Sen (2020) find that IT systems help companies scale their operations to larger areas by allowing for remote monitoring and managing, which reduces the overall cost of operations.

Thus, an integrated system is a strategic resource that allows for CBMs to scale. However, the problem that the respondents raise is that the IT systems available on the market, or developed for the linear business model of the mother company, are not adapted to CBM workflows (i.e. challenge relating to the lack of out-of-the-box solutions). Hence, a corresponding resource, which is identified in Paper 2, is having key individuals with time and competencies to develop tailor-made systems and matching processes. These individuals must understand the business model's particularities and have the competence to develop routines and supporting IT systems tailored for it. Although it is beneficial to have the competencies for developing IT solutions in-house, this does not seem to be essential for all CBMs. Company K, for example, collaborated with a partner organisation to develop their solution. However, the capability to identify the need (or opportunity) and convey that information to the partner is essential.

Moreover, this relates to the reconfiguring capability for scaling out that is identified in Paper 3. Here, knowledge transfer routines are identified as a microfoundation that facilitates scale by allowing the organisation to manage information flows over larger areas and with an increasing number of transactions. These routines often rely on IT systems to be scalable.

Partnering, collaborating and networking

Partnering and collaborations are important for the scalability of a business model since strategic partnerships can provide access to resources or capabilities that are too difficult or costly to develop (Acquier, Carbone & Massé 2019; Ćwiklicki 2019; Nielsen & Lund 2018; Shrimali & Sen 2020). As discussed in Subsection 6.1, there are several ways in which strategic partnerships and collaborations can enhance the scalability of CBMs. They can help resolve inefficiency challenges by reducing complexity or aid in exploring new opportunities. In the interviews for Papers 2 and 3, partners, collaborations, and networking are found to play an important role in the scalability of the CBMs. Depending on the nature of the collaborations, they contribute to solving different scalability challenges.

In Paper 3, the ability to be open to external ideas and collaborations is identified as a microfoundation for sensing new opportunities to scale, and consequently, the ability to build partnerships is found to be a microfoundation to seize that opportunity. The interviewed companies use partnerships in different ways. On the one hand, for some, for example, Company H and Company J, partnerships increase their reach by providing access to established sales channels and new, larger, customer

groups. Company J identify their distribution deal with a larger retail chain as key for their scalability since it increases their exposure to potential customers. For Company H, partnerships are a way to expand their scope by helping fashion brands that incorporate used garments into their offers. On the other hand, Company E refers to partners as a strategic resource that can be used for testing things and running pilots, that is, almost as a stepping stone when entering a new market or trying a new concept.

Another type of partnership is that between a CBM initiative and its mother organisation. For CBM initiatives that are run parallel to an otherwise linear model, leveraging existing resources, such as store space and staff, is described as important for scalability (e.g. store personnel that can do repairs when not busy with other tasks). However, in the long run, the aim of the CBM initiative should be to integrate the circular practices into the mother organisation, transforming it into a CBM. Therefore, this might be beneficial in the beginning, but is not viable in the long run, without a clear plan for such integration.

Additionally, Paper 3 examines the dynamic capabilities CBMs use to impact policy and finds that networking and the ability to formalise networks are the microfoundations for dynamic capabilities used. Thus, network collaborations between competitors can enable CBMs to overcome some of the challenges related to unfamiliarity and dissonance with current practices and policy. This mostly refers to different forms of tax reliefs as well as the need to locally develop the production capability. However, only three of the interviewed companies refer to actively being engaged in seizing opportunity for policy change. At the time of the interview, these organisations were in the process of formalising these networks to jointly work towards policy change.

Customers and community

In many CBMs in the fashion retail value chain, consumers have a central role to play since they are not only the end customer but also part of a larger resource flow. When consumers are tired of a garment or it is worn out, they need to bring the garment to a place where it can be resold, repaired, recycled, or rented out again. CBMs that involve consumers in more ways than one, such as second-hand stores, must therefore, engage consumers as both customers and suppliers. However, the engagement created by this involvement is advantageous. By fostering engagement and a sense of community, the CBM can exploit increasing informational returns due to word-of-mouth. For example, if a consumer is selling garments through a CBM, the consumer has more incentive to spread the word about the company since they are part of it. Respondents from both Company I and Company K say that word-of-mouth is their main mode of marketing when opening in new cities.

Moreover, a customer community is useful in reducing operational complexity. Companies can leverage the community and outsource some tasks to customers. The peer-to-peer model that Company D and Company E use is one way of doing this. Instead of managing large volumes of used garments, the customer is responsible for all the steps required to make the product available for sale. In this model, the company is the facilitator that provides a platform, wherein customers can exchange their second-hand garments. This approach has potential regarding creating a scalable CBM. Platforms are often described as highly scalable, and Nielsen and Lund (2018), for example, suggest this approach as well as other ways to leverage the work of customers in the design of scalable business models.

This model is however not suitable if the company wants to be in control of checking quality and style before sale. However, companies operating other types of CBMs can also find was to leverage the work of customers, for example, by asking customers to sort the garments in specific ways before handing them over. This is a small task for the individual consumer but can help with the internal routines of the organisation.

Piloting capabilities

Since CBMs often search for novel ways to create, deliver, or capture value, Paper 3 identifies the ability to run pilots as an important microfoundation for seizing opportunity when scaling out. Testing and experimenting in a real business setting with real customers allow the organisation to learn and develop new ideas. This not only provides an opportunity to test hypotheses that can lead to better insights into how to scale but also helps build business cases that can showcase the viability of the model and support access to funds. Therefore, piloting and experimentation can have multiple purposes. Bocken, Schuit and Kraaijenhagen (2018) find that, in addition to being a tool for testing assumptions, experiments can help create internal as well as external engagement for change.

In Paper 2, accessing funds and investments is found to be challenging due to the lack of relevant performance metrics that not only consider the economic values but also environmental or social values. The circular business developer for Company E, for example, says that to get access to resources for developing the CBM initiative, "we must find new ways of measuring the cost of the conventional business /…/ then find the financial arguments for [CBMs]". Similarly, Paper 3 finds that integrating CBM in the general growth strategies and business culture requires new metrics to be developed, which account for the triple bottom line as a whole. As long as environmental and social parameters of linear production are left out of the equation, CBM initiatives will always fall short in comparison. The sustainability manager at Company A expresses this very well by saying, “you can do a lot of different things; repairs, or rents, or whatever. But if you do not have a way to quantify it and integrate it in the company, in the business, then it will still be a side activity”. In the absence of comparable performance metrics, the respondents instead rely on piloting to overcome the unfamiliarity and lack of know-how regarding CBMs.

Similar to what we find in our interviews, the systematic literature review by Jia, Yin, Chen and Chen (2020) finds that a lack of appropriate performance metrics is an operational challenge, and that connecting performance metrics for circular practices could have a positive effect on the integration and implementation.

Entrepreneurial engagement

In Paper 3, the role of entrepreneurial engagement in environmental and social issues is found to be important for sensing opportunities for changing people’s view of circular consumption. Founders, also in addition to other managers, express a desire to influence the industry. This is expressed in terms of “being part of something bigger” (Owner, Company K) or that “we need to change the world’s diet” (creative director and co-founder of Company H). This engagement is rooted in something greater than the desire to make a profit, which might be the reason why they dare venture into a business in which the financial earnings are uncertain.

Additionally, other studies suggest that key individuals in the management team can play an important role in identifying opportunities for the successful scaling of businesses (e.g. Biloshapka & Osiyevskyy 2018; Blundel & Lyon 2015; Walske & Tyson 2015). However, the role and requirements of the management team might shift over time, and while entrepreneurial engagement and a “we will change the industry” attitude might be necessary in the earlier phases of growth, it needs to shift to more formalised structures in the latter stages. This is for example suggested by the sustainability manager of Company A when discussing the need for performance metrics and more structured processes for further scaling their CBM initiatives. Notwithstanding, thus far, the attitude of “just doing” is serving them well in scaling the CBM. Walske and Tyson (2015) draw a similar conclusion in their study of social enterprises and emphasise the importance of the “right team for the right time” (p. 278).

Creating a fashionable offer

To overcome challenges related to unfamiliarity and scepticism, CBMs must offer something that the consumers recognise as desirable. If consumers find the offer uninteresting, it is unlikely that they will engage in it and spread the word to their peers. However, there are several reasons why customers engage in circular consumption. When studying the motivations for customers to engage in second-hand shopping, Ferraro, Sands and Brace-Govan (2016) find that recreational and economic motivations are often intertwined with a growing emphasis on fashion. Further, they suggest that second-hand retailers should increase their presence on the high street to reach new customer segments more easily. This corresponds to the finding in Paper 2, wherein the product assortment and an attractive location close to where customers normally shop are suggested as strategic resources.

Regarding the key aspect for scaling the business, the creative director and co-founder of Company H says “it is going to sound so stupidly obvious, but the fashion needs to be right”. The view is that they are not selling second-hand garments but selling fashion, and that “we need to interpret the trend of the day, through used [garments]”. Thus, the capability required for scale comprises the ability to access garments of high enough quality and style to build a fashionable offer. The more premium fashion brands that are interviewed, do this by circling their own products, which they know are of high quality and “timeless design” (e.g. Company A, Company F, and Company L), either by offering repair, renting, or collecting, and resale solutions. Other CBMs, like that of Company H, need capabilities to interpret trends and pick the right garments either from large scale sorting facilities or through customer consignment setups, which links to the need for IT systems and knowledge transfer as well as training staff in the logic of building a business on circularity.

Creating a fashionable offer is also about the words that re used. In line with Moore, Riddell and Vocisano (2015), Paper 3 identifies that changing people’s perceptions of CBMs is about changing the narrative. Instead of using words such as ”second-hand”, which might be associated with old and dirty rather than fashion, the interviewed companies use words such as “re-loved”. Company A even rebranded their stores to indicate that they were not only selling stuff but also repairing, which made “repair” part of the brand’s story.

7 Conclusion and future research

This section concludes the thesis and presents the theoretical and practical contributions. To finalise, limitations and future research directions are suggested as well.

7.1 Summary

It is crucial to understand the scalability of CBMs to understand how linear consumption practices can be replaced with more sustainable practices on a larger scale. In Section 6.1, three perspectives that can enhance the understanding of the mechanisms for CBM's ability to scale are outlined. These build on the findings that are made in Paper 1 and Paper 3. In Paper 1, a conceptual model that represents four strategic approaches to scale is identified, and in Paper 3, scalability is investigated from the perspective of the dynamic capabilities required for scaling along the three scaling logics (i.e. scaling out, up, and deep). The combination of these two studies provides the three perspectives discussed in Section 6.1. The first perspective is efficiency, which reduces operational complexity as the main target; the second is to have flexibility in the business model design to adapt to changing conditions; and the third perspective outlines the importance of acting externally and altruistically supporting activities that lead to a growing market for circular consumption solutions. However, as the discussion in Section 6 indicates, the scaling of CBMs must consider other perspectives as compared to the scaling of linear business models since the goal is to adhere to a circular economic system. A CBM's ability to scale should, therefore, not only be measured in economic terms, but also include the displacing of linear consumption with practices that contribute to more sustainable consumption. Otherwise, the CBMs value propositions cannot be said to have scaled.

Additionally, three challenging areas are identified. These are extracted from the interviews that are conducted and analysed from the perspectives of strategic resources and dynamic capabilities in Paper 2 and Paper 3. Based on these two papers, three challenging areas are identified and further elaborated on in Section 6.2. One challenging area relates to the inefficiency and operational complexity in CBMs and the other two refer to challenges related to the novelty of the business model design of many CBMs. Accordingly, resources and capabilities that help organisations overcome these challenges in different ways are identified. For example, networking capabilities help to influence policy change, thus overcoming challenges stemming from taxes or other legislations not aligned with CBM logic, and interestingly, the brick-and-mortar store is identified as a resource that leads to reduced complexity as compared to re-commerce.

7.2 Theoretical contributions

In addition to the contributions outlined in the individual papers, this research provides three significant theoretical contributions towards furthering the understanding of CBM scalability in fashion retail value chains. First, it provides a novel and extended perspective of scalability that better accommodates the context of CBMs in the fashion retail value chain. This extension of the notion of the business model scalability goes beyond the boundary of the organisation by encompassing three perspectives, namely, efficiency, adaptability, and altruism. Thus, it both adds to and builds on the general body of knowledge of business model scalability. Similar extensions of the notion of business model scalability are made in the social innovation literature by frameworks such as SCALERS (Bloom & Chatterji 2009) and scaling out, up, and deep (Moore, Riddell & Vocisano 2015). However, in this research, the specific conditions associated with a circular economy and CBMs are considered. Hence, it helps in developing a better understanding of the mechanisms of scaling CBMs, and thus, contributes to the CBM literature and knowledge of scalability in this particular context.

Second, the challenges to CBM scalability are identified by building on the concept of business model design themes (Zott & Amit 2007) as a guiding framework. This allows identifying three challenging areas that stem from different business model configurations, which are related to the previously discussed expanded notion of scalability. Although design themes have been used in other studies as a unit for understanding economic performance in relation to business model configurations (cf. Kulins, Leonardy & Weber 2016; Teece 2007; Wei, Yang, Sun & Gu 2014), this thesis present a novel application where it is used as a unit for analysing challenges. During the course of this research project this application has not been found in any of the other studies.

Lastly, this research contributes to the CBM literature by utilising the theoretical lenses of resource-based theory and dynamic capabilities theory to identify resources and dynamic capabilities that are of strategic importance for scaling CBMs. While the aforementioned perspectives are not novel to the context of circular or sustainable business models (Bocken & Geradts 2020; Chiappetta Jabbour et al. 2019; Franco 2017; e.g. Khan, Daddi & Iraldo 2020), other studies focus more extensively on the implementation and growth in individual organisations. However, since this research finds that scalability goes beyond the boundary of the single organisation and additionally provides a perspective of scalability as opposed to other performance indicators, the findings herein have valuable implications regarding understanding CBMs.

7.3 Practical contributions

In terms of practical contributions, this research provides insights, as well as guidance, that can be used by managers and business developers to better understand or evaluate the scalability of their CBMs. In addition to a conceptual model, Paper 1, for example, outlines some key propositions that can be used as guiding principles. Moreover, Paper 2 and Paper 3 provide useful insights by identifying strategic resources and capabilities and their roles in scaling. Furthermore, the answers to the RQs of this thesis provide additional knowledge. For example, the three challenging areas can be useful for practitioners when analysing how to scale CBMs. Merged with the discussion concerning the identified strategic resources and capabilities, a starting point is provided for understanding the required developments or investment. A CBM that struggles to scale due to the operational complexity could, for example, consider finding ways to leverage the work of customers to simplify the processes, or invest in more integrated IT solutions. Finally, if the challenges can be traced to policies or regulations that are not adapted to CBM logic, networking capabilities could jointly influence policy change.

However, this research is exploratory and the findings are best viewed as lessons that can be built on to create more comprehensive company-specific learnings.

7.4 Limitations and future research

The research presented in this thesis represents the first exploratory stepping stones towards a more comprehensive understanding of how CBMs in fashion retail value chains can scale their operations and reach. As with most research, the present research has its limitations, and even though great emphasis is placed on providing comprehensive answers to the RQs, these answers cannot be considered as complete. In-depth understandings of the role of specific capabilities, resources, and business model configurations are not elaborated on to the fullest extent. Therefore, the findings of this research study can be further developed in more specific studies in the future. Thus, a suggestion for future research is to elaborate on some key findings to more specifically address the roles of certain aspects in scaling CBMs in the fashion retail value chain, and whether that role will change over time. Additionally, an interesting question could be how the interrelatedness between resources and capabilities on the one hand, and business model design on the other, affect CBMs' ability to scale.

One of the limitations of this research is the data, which is exclusively qualitative and comprises interviews and documents. To further the understanding of the complexity of CBM scalability, other sources of data, such as observations, could be added. The findings could further be strengthened by triangulation with other analytical methods; utilising quantitative research strategies is one way of doing this. Accordingly, more in-depth case studies could be constructed around CBMs with different scalability approaches, which could help to link the strategies, resources, and capabilities to the scalability approach or business model design. There are many case studies on CBM (e.g. Bocken, Fil & Prabhu 2016; Khan, Daddi & Iraldo 2020) as well as business model scalability (e.g. Acquier, Carbone & Massé 2019; Zhang, Lichtenstein & Gander 2015). Merging extant perspectives in an in-depth case study could, however, extend the findings of this research and our understanding of what it takes to scale CBMs in fashion retail value chains.

Another limitation concerns the market context. The companies used to contextualise the findings in Paper 1 are not limited to any specific region. However, the companies involved in the industry initiative that is used to structure the data gathering are mainly centred in Europe and North America. Therefore, it is important to recognise that this research provides a western perspective on the findings. This perspective becomes narrower in the interviews in which the companies interviewed were all active in the Swedish market (even though some of them operated internationally as well). Selecting cases from one market means that case comparisons can be made without considering the market context. However, the Swedish perspective in the research can be considered a limitation since it influences the transferability of the findings. Therefore, future studies could be conducted to confirm or refute the applicability of these findings in other contexts.

Additionally, this research focuses on the retail segment of the circular resource flow and the customer-facing business models of fashion retail value chains. An interesting future research area is to see if and how configurations in these CBMs affect the scalability of other CBMs in the value chain, and vice-versa. While most studies, including the present thesis, focus on the CBM and their design in isolation, the concept of circular economy builds on loops wherein the interplay between CBMs is crucial to extending the use phase of garments (Pedersen, Earley & Andersen 2019). Changes in the design of one CBM might, therefore, affect other stakeholders in the value chain. Future studies could benefit from linking the business model design choices related to scalability to the performance of other CBMs.

References

Acquier, A., Carbone, V. & Massé, D. (2019). How to Create Value(s) in the Sharing Economy: Business Models, Scalability, and Sustainability. *Technology Innovation Management Review,* 9(2), pp. 5-24. doi:10.22215/timreview/1215

Adam, M., Strähle, J. & Freise, M. (2018). Dynamic capabilities of early-stage firms: Exploring the business of renting fashion. *Journal of Small Business Strategy,* 28(2), pp. 49-67.

Adams, R. J., Smart, P. & Huff, A. S. (2017). Shades of Grey: Guidelines for Working with the Grey Literature in Systematic Reviews for Management and Organizational Studies. *International Journal of Management Reviews,* 19(4), pp. 432-454. doi:10.1111/ijmr.12102

Alvesson, M. (2012). Do we have something to say? From re-search to roi-search and back again. *Organization,* 20(1), pp. 79-90. doi:10.1177/1350508412460996

Alvesson, M. & Kärreman, D. (2007). Constructing mystery: Empirical matters in theory development. *Academy of Management Review,* 32(4), pp. 1265-1281. doi:10.5465/amr.2007.26586822

Alvesson, M. & Sköldberg, K. (2008). *Tolkning och reflektion: vetenskapsfilosofi och kvalitativ metod.* 2 ed. Lund: Studentlitteratur.

Amit, R. & Schoemaker, P. J. (1993). Strategic assets and organizational rent. *Strategic management journal,* 14(1), pp. 33-46.

Ansoff, H. I. (1988). *The New Corporate Strategy.* Somerset,New Jersey, USA.: John Wiley & Sons Inc.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management,* 17(1), pp. 99-120.

Barney, J. B. & Clark, D. N. (2007). *Resource-Based Theory: Creating and Sustaining Competitive Advantage.* Oxford University Press.

Bauwens, T., Hekkert, M. & Kirchherr, J. (2020). Circular futures: What Will They Look Like? *Ecological Economics,* 175. doi:10.1016/j.ecolecon.2020.106703

Bauwens, T., Huybrechts, B. & Dufays, F. (2020). Understanding the Diverse Scaling Strategies of Social Enterprises as Hybrid Organizations: The Case of Renewable Energy Cooperatives. *Organization & Environment,* 33(2), pp. 195-219. doi:10.1177/1086026619837126

Biloshapka, V. & Osiyevskyy, O. (2018). Your winning business model agenda: four questions to shape growth. *Strategy & Leadership,* 46(4), pp. 21-27. doi:10.1108/sl-04-2018-0038

Bloom, P. N. & Chatterji, A. K. (2009). Scaling Social Entrepreneurial Impact. *California Management Review,* 51(3), pp. 114-133. doi:10.2307/41166496

Blundel, R. K. & Lyon, F. (2015). Towards a 'Long View': Historical Perspectives on the Scaling and Replication of Social Ventures. *Journal of Social Entrepreneurship,* 6(1), pp. 80-102. doi:10.1080/19420676.2014.954258

Bocken, N. M. P., de Pauw, I., Bakker, C. & van der Grinten, B. (2016). Product design and business model strategies for a circular economy. *Journal of Industrial and Production Engineering,* 33(5), pp. 308-320. doi:10.1080/21681015.2016.1172124

Bocken, N. M. P., Fil, A. & Prabhu, J. (2016). Scaling up social businesses in developing markets. *Journal of Cleaner Production,* 139, pp. 295-308. doi:10.1016/j.jclepro.2016.08.045

Bocken, N. M. P. & Geradts, T. H. J. (2020). Barriers and drivers to sustainable business model innovation: Organization design and dynamic capabilities. *Long Range Planning,* 53(4). doi:10.1016/j.lrp.2019.101950

Bocken, N. M. P., Schuit, C. S. C. & Kraaijenhagen, C. (2018). Experimenting with a circular business model: Lessons from eight cases. *Environmental Innovation and Societal Transitions,* 28, pp. 79-95. doi:10.1016/j.eist.2018.02.001

Bocken, N. M. P., Short, S. W., Rana, P. & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production,* 65, pp. 42-56. doi:10.1016/j.jclepro.2013.11.039

Boons, F. & Lüdeke-Freund, F. (2013). Business models for sustainable innovation: state-of-the-art and steps towards a research agenda. *Journal of Cleaner Production,* 45, pp. 9-19. doi:10.1016/j.jclepro.2012.07.007

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology,* 3(2), pp. 77-101.

Braun, V. & Clarke, V. (2020). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*, pp. 1-25. doi:10.1080/14780887.2020.1769238

Brinkmann, S. & Kvale, S. (2015). *InterViews: Learning the craft of qualitative research interviewing.* 3rd ed.: Sage Publications.

Carlsson, A., Hemström, K., Edborg, P., Stenmarck, Å. & Sörme, L. (2011). *Kartläggning av mängder och flöden av textilavfall*. Norrköping, Sweden.

Chamberlin, E. (1933). *The theory of monopolistic competition.* Cambridge, MA: Harvard University Press.

Chesbrough, H. (2003). The era of open innovation. *MIT Sloan Management Review,* Vol. 44(No. 3), pp. pp.33-41.

Chesbrough, H. (2010). Business Model Innovation: Opportunities and Barriers. *Long Range Planning,* 43(2-3), pp. 354-363. doi:10.1016/j.lrp.2009.07.010

Chiappetta Jabbour, C. J., Sarkis, J., Lopes de Sousa Jabbour, A. B., Scott Renwick, D. W., Singh, S. K., Grebinevych, O., Kruglianskas, I. & Filho, M. G. (2019). Who is in charge? A review and a research agenda on the 'human side' of the circular economy. *Journal of Cleaner Production,* 222, pp. 793-801. doi:10.1016/j.jclepro.2019.03.038

Ćwiklicki, M. (2019). Requirements for Scaling International Social Enterprises. *Entrepreneurial Business and Economics Review,* 7(1), pp. 45-60. doi:10.15678/eber.2019.070103

Dobson, K., Boone, S., Andries, P. & Daou, A. (2018). Successfully creating and scaling a sustainable social enterprise model under uncertainty: The case of ViaVia Travellers Cafés. *Journal of Cleaner Production,* 172, pp. 4555-4564. doi:10.1016/j.jclepro.2017.09.010

Eisenhardt, K. M. & Martin, J. A. (2000). Dynamic capabilities: what are they? *Strategic Management Journal,* 21(10-11), pp. 1105-1121.

Ellen MacArthur Foundation (2013). *Towards the Circular Economy: Economic and Business Rationale for an Accelerated Transition*. https://www.ellenmacarthurfoundation.org/publications

Ellen MacArthur Foundation (2017). *A New Textiles Economy: Redesigning Fashion's Future*. https://www.ellenmacarthurfoundation.org/publications

Esposito, M., Lenssen, G., Kapoor, A. & Goyal, S. (2012). Enabling healthcare services for the rural and semi-urban segments in India: when shared value meets the bottom of the pyramid. *Corporate Governance: The international journal of business in society,* 12(4), pp. 514-533. doi:10.1108/14720701211267847

European Environment Agency (2019). *Textiles and the environment in a circular economy (Eionet Report - ETC/WMGE 2019/6)*. https://www.eionet.europa.eu/etcs/etc-wmge/products/etc-reports/textiles-and-the-environment-in-a-circular-economy

Fahy, J. (2000). The resource-based view of the firm: some stumbling-blocks on the road to understanding sustainable competitive advantage. *Journal of European industrial training*, pp. 94-104.

Ferasso, M., Beliaeva, T., Kraus, S., Clauss, T. & Ribeiro-Soriano, D. (2020). Circular economy business models: The state of research and avenues ahead. *Business Strategy and the Environment,* 29(8), pp. 3006-3024. doi:10.1002/bse.2554

Ferraro, C., Sands, S. & Brace-Govan, J. (2016). The role of fashionability in second-hand shopping motivations. *Journal of Retailing and Consumer Services,* 32, pp. 262-268. doi:10.1016/j.jretconser.2016.07.006

Franco, M. A. (2017). Circular economy at the micro level: A dynamic view of incumbents' struggles and challenges in the textile industry. *Journal of Cleaner Production,* 168, pp. 833-845. doi:10.1016/j.jclepro.2017.09.056

Frishammar, J. & Parida, V. (2018). Circular Business Model Transformation: A Roadmap for Incumbent Firms. *California Management Review,* 61(2), pp. 5-29. doi:10.1177/0008125618811926

Geissdoerfer, M., Savaget, P., Bocken, N. M. P. & Hultink, E. J. (2017). The Circular Economy – A new sustainability paradigm? *Journal of Cleaner Production,* 143, pp. 757-768. doi:10.1016/j.jclepro.2016.12.048

Gioia, D. A., Corley, K. G. & Hamilton, A. L. (2012). Seeking qualitative rigor in inductive research: notes on the Gioia methodology. *Organizational Research Methods,* 16(1), pp. 15-31. doi:10.1177/1094428112452151

Goyal, S., Sergi, B. S. & Kapoor, A. (2017). Emerging role of for-profit social enterprises at the base of the pyramid: the case of Selco. *Journal of Management Development,* 36(1), pp. 97-108. doi:10.1108/jmd-05-2015-0070

Guldmann, E. & Huulgaard, R. D. (2019). Circular Business Model Innovation for Sustainable Development. In Bocken, N. M. P., Ritala, P., Albareda, L. & Verburg, R. (eds.) *Innovation for Sustainability.* Palgrave Macmillan. , pp. 77-95. doi:10.1007/978-3-319-97385-2_5

Hallowell, R. (2001). ``Scalability'': the paradox of human resources in e-commerce. *International Journal of Service Industry Management,* 12(1), pp. 34-43.

Hart, S. L. (1995). A natural-resource-based view of the firm. *Academy of management review,* 20(4), pp. 986-1014.

Hart, S. L. & Dowell, G. (2011). Invited Editorial: A Natural-Resource-Based View of the Firm: Fifteen years after. *Journal of Management,* 37(5), pp. 1464-1479. doi:10.1177/0149206310390219

Helfat, C., Finkelstein, S., Mitchell, W., Peteraf, M. A., Singh, H., Teece, D. & Winter, S. (2007). *Dynamic Capabilities: Understanding Strategic Change in Organizations.* New York: Blackwell Publishing.

Hvass, K. K. (2015). Business model innovation through second hand retailing: a fashion industry case. *Journal of Corporate Citizenship,* (57), pp. 11-32.

Insight Intelligence, S. o. H., Report, (2020). *Svenskar och Hållbarhet*. https://www.insightintelligence.se/svenskar-och-hallbarhet/svenskar-och-hallbarhet-2020/

Jia, F., Yin, S., Chen, L. & Chen, X. (2020). The circular economy in the textile and apparel industry: A systematic literature review. *Journal of Cleaner Production,* 259. doi:10.1016/j.jclepro.2020.120728

Ketokivi, M. & Choi, T. (2014). Renaissance of case research as a scientific method. *Journal of Operations Management,* 32(5), pp. 232-240.

Khan, O., Daddi, T. & Iraldo, F. (2020). Microfoundations of dynamic capabilities: Insights from circular economy business cases. *Business Strategy and the Environment,* 29(3), pp. 1479-1493. doi:10.1002/bse.2447

Ki, C. W., Chong, S. M. & Ha-Brookshire, J. E. (2020). How fashion can achieve sustainable development through a circular economy and stakeholder engagement: A systematic literature review. *Corporate Social Responsibility and Environmental Management,* 27(6), pp. 2401-2424. doi:10.1002/csr.1970

Kirchherr, J., Reike, D. & Hekkert, M. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation and Recycling,* 127, pp. 221-232. doi:10.1016/j.resconrec.2017.09.005

Kohler, T. (2018). How to Scale Crowdsourcing Platforms. *California Management Review,* 60(2), pp. 98-121. doi:10.1177/0008125617738261

Kovács, G., van Hoek, R. & Spens, K. M. (2005). Abductive reasoning in logistics research. *International Journal of Physical Distribution & Logistics Management,* 35(2), pp. 132-144. doi:10.1108/09600030510590318

Kulins, C., Leonardy, H. & Weber, C. (2016). A configurational approach in business model design. *Journal of Business Research,* 69(4), pp. 1437-1441. doi:10.1016/j.jbusres.2015.10.121

Lahti, T., Wincent, J. & Parida, V. (2018). A Definition and Theoretical Review of the Circular Economy, Value Creation, and Sustainable Business Models: Where Are We Now and Where Should Research Move in the Future? *Sustainability,* 10(8). doi:10.3390/su10082799

Leask, G. & Parnell, J. A. (2005). Integrating Strategic Groups and the Resource Based Perspective:: Understanding the Competitive Process. *European Management Journal,* 23(4), pp. 458-470.

Lehmann, M., Arici, G., Boger, S., Martinez-Pardo, C., Krueger, F., Schneider, M., Carrière-Pradal, B. & Schou, D. (2019). *Pulse of the Fashion Industry 2019 Update*. Global Fashion Agenda, B. C. G., and Sustainable Apparel Coalition. https://www.globalfashionagenda.com/publications-and-policy/pulse-of-the-industry/

Lieder, M. & Rashid, A. (2016). Towards circular economy implementation: a comprehensive review in context of manufacturing industry. *Journal of Cleaner Production,* 115, pp. 36-51. doi:10.1016/j.jclepro.2015.12.042

Linder, M. & Williander, M. (2017). Circular Business Model Innovation: Inherent Uncertainties. *Business Strategy and the Environment,* 26(2), pp. 182-196. doi:10.1002/bse.1906

Lopes de Sousa Jabbour, A. B., Rojas Luiz, J. V., Rojas Luiz, O., Jabbour, C. J. C., Ndubisi, N. O., Caldeira de Oliveira, J. H. & Junior, F. H. (2019). Circular economy business models and operations management. *Journal of Cleaner Production,* 235, pp. 1525-1539. doi:10.1016/j.jclepro.2019.06.349

Lüdeke-Freund, F. M., Gold, S. & Bocken, N. (2019). A Review and Typology of Circular Economy Business Model Patterns. *Journal of Industrial Ecology,* 23(1), pp. 36-61.

Mallett, R., Hagen-Zanker, J., Slater, R. & Duvendack, M. (2012). The benefits and challenges of using systematic reviews in international development research. *Journal of Development Effectiveness,* 4(3), pp. 445-455. doi:10.1080/19439342.2012.711342

Mays, N. & Pope, C. (2000). Assessing quality in qualitative research. 320(7226), pp. 50-52.

Merriam-Webster (n.d.). Scalable. In *Merriam-Webster.com dictionary.*

Miller, D. (1996). Configurations revisited. *Strategic Management J.,* 17, pp. 505–512.

Miller, G., Dingwall, R. & Murphy, E. (2004). Using qualitative data and analysis: Reflections on organizational research. In Silverman, D. (ed.) *Qualitative research : theory, method and practice.* 2 ed.: SAGE, pp. 325-341.

Miller, J. & Glassner, B. (2004). The "inside" and "outside": Finding realities in interviewes. In Silverman, D. (ed.) *Qualitative research : theory, method and practice.* 2 ed.: SAGE, pp. 325-341.

Mohan, L. & Potnis, D. (2010). Catalytic Innovation in Microfinance for Inclusive Growth: Insights from SKS Microfinance. *Journal of Asia-Pacific Business,* 11(3), pp. 218-239. doi:10.1080/10599231.2010.500574

Moore, M.-L., Riddell, D. & Vocisano, D. (2015). Scaling Out, Scaling Up, Scaling Deep: Strategies of Non-profits in Advancing Systemic Social Innovation. *Journal of Corporate Citizenship,* 2015(58), pp. 67-84. doi:10.9774/GLEAF.4700.2015.ju.00009

Nielsen, C. & Lund, M. (2018). Building scalable business models. *MIT Sloan Management Review,* 59(2), pp. 65-69.

Niinimäki, K., Peters, G., Dahlbo, H., Perry, P., Rissanen, T. & Gwilt, A. (2020). The environmental price of fast fashion. *Nature Reviews Earth & Environment,* 1(4), pp. 189-200. doi:10.1038/s43017-020-0039-9

Nußholz, J. (2017). Circular Business Models: Defining a Concept and Framing an Emerging Research Field. *Sustainability,* 9(10). doi:10.3390/su9101810

Nußholz, J. L. K. (2018). A circular business model mapping tool for creating value from prolonged product lifetime and closed material loops. *Journal of Cleaner Production,* 197, pp. 185-194. doi:10.1016/j.jclepro.2018.06.112

Olavarrieta, S. & Ellinger, A. E. (1997). Resource-based theory and strategic logistics research. *International Journal of Physical Distribution & Logistics Management*.

Osterwalder, A. & Pigneur, Y. (2010). *Business model generation: a handbook for visionaries, game changers, and challengers.* Chichester: John Wiley and Sons.

Osterwalder, A., Pigneur, Y. & Tucci, C. L. (2005). Clarifying business models: Origins, present, and future of the concept. *Communications of the association for Information Systems,* 16(1).

Pal, R. (2017). Value creation through reverse logistics in used clothing networks. *The International Journal of Logistics Management,* 28(3), pp. 864-906. doi:10.1108/ijlm-11-2016-0272

Pal, R. & Gander, J. (2018). Modelling environmental value: An examination of sustainable business models within the fashion industry. *Journal of Cleaner Production,* 184, pp. 251-263. doi:10.1016/j.jclepro.2018.02.001

Pal, R., Shen, B. & Sandberg, E. (2019). Circular fashion supply chain management: exploring impediments and prescribing future research agenda. *Journal of Fashion Marketing and Management: An International Journal,* 23(3), pp. 298-307. doi:10.1108/jfmm-07-2019-166

Palomares-Aguirre, I., Barnett, M., Layrisse, F. & Husted, B. W. (2018). Built to scale? How sustainable business models can better serve the base of the pyramid. *Journal of Cleaner Production,* 172, pp. 4506-4513. doi:10.1016/j.jclepro.2017.11.084

Pedersen, E. R. G., Earley, R. & Andersen, K. R. (2019). From singular to plural: exploring organisational complexities and circular business model design. *Journal of Fashion Marketing and Management: An International Journal,* 23(3), pp. 308-326. doi:10.1108/jfmm-04-2018-0062

Penrose, E. (1959). *The Theory of the growth of the firm.* Oxford: Blackwell.

Peteraf, M. A. (1993). The cornerstones of competitive advantage: a resource-based view. *Strategic management journal,* 14(3), pp. 179-191.

Regeringskansliet (2020). *Cirkulär ekonomi – strategi för omställningen i Sverige*. https://www.regeringen.se/informationsmaterial/2020/07/cirkular-ekonomi---strategi-for-omstallningen-i-sverige/

Reilly, F. (2019). *Charles Peirce's theory of scientific method.* Fordham University Press. p.57, 125.

Ritter, T. & Lettl, C. (2018). The wider implications of business-model research. *Long Range Planning,* 51(1), pp. 1-8. doi:10.1016/j.lrp.2017.07.005

Rohrbeck, R., Konnertz, L. & Knab, S. (2013). Collaborative business modelling for systemic and sustainability innovations. *International Journal of Technology Management,* 63(1/2). doi:10.1504/ijtm.2013.055577

Rok, B. & Kulik, M. (2020). Circular start-up development: the case of positive impact entrepreneurship in Poland. *Corporate Governance (Bingley)*. doi:10.1108/CG-01-2020-0043

Roos, J. M. (2020). *Konsumtionsrapporten 2020. Acceleration*. Göteborg.

Ryan, G. W. & Bernard, H. R. (2003). Techniques to Identify Themes. *Field Methods,* 15(1), pp. 85-109. doi:10.1177/1525822x02239569

Sandberg, E., Pal, R. & Hemilä, J. (2018). Exploring value creation and appropriation in the reverse clothing supply chain. *The International Journal of Logistics Management,* 29(1), pp. 90-109. doi:10.1108/ijlm-10-2016-0241

Schön, O. (2012). Business model modularity–a way to gain strategic flexibility? *Controlling & Management,* 56(2), pp. 73-78.

Shrimali, G. & Sen, V. (2020). Scaling reliable electricity access in India: A public-private partnership model. *Energy for Sustainable Development,* 55, pp. 69-81. doi:10.1016/j.esd.2020.01.006

Sjödin, D., Parida, V., Kohtamaki, M. & Wincent, J. (2020). An agile co-creation process for digital servitization: A micro-service innovation approach. *Journal of Business Research,* 112, pp. 478-491. doi:10.1016/j.jbusres.2020.01.009

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research,* 104, pp. 333-339. doi:10.1016/j.jbusres.2019.07.039

Sosna, M., Trevinyo-Rodríguez, R. N. & Velamuri, S. R. (2010). Business Model Innovation through Trial-and-Error Learning. *Long Range Planning,* 43(2-3), pp. 383-407. doi:10.1016/j.lrp.2010.02.003

Stampfl, G., Prügl, R. & Osterloh, V. (2013). An explorative model of business model scalability. *International Journal of Product Development,* 18(3/4), pp. 226-248. doi:10.1504/ijpd.2013.055014

Stål, H. I. & Corvellec, H. (2018). A decoupling perspective on circular business model implementation: Illustrations from Swedish apparel. *Journal of Cleaner Production,* 171, pp. 630-643. doi:10.1016/j.jclepro.2017.09.249

Sweet, S., Aflaki, R. & Stalder, M. (2019). *The Swedish market for preowned apparel and its role in moving the fashion industry towards more sustainable practices.* .

Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal,* 28, pp. 1319-1350.

Teece, D. J. (2010). Business Models, Business Strategy and Innovation. *Long Range Planning,* 43(2-3), pp. 172-194. doi:10.1016/j.lrp.2009.07.003

Teece, D. J. (2018). Business models and dynamic capabilities. *Long range planning,* 51(1), pp. 40-49.

Teece, D. J., Pisano, G. & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal,* 18(7), pp. 509-533.

Thomassey, S. (2010). Sales forecasts in clothing industry: The key success factor of the supply chain management. *International Journal of Production Economics,* 128(2), pp. 470-483. doi:10.1016/j.ijpe.2010.07.018

Thompson, J. D. & MacMillan, I. C. (2010). Business Models: Creating New Markets and Societal Wealth. *Long Range Planning,* 43(2-3), pp. 291-307. doi:10.1016/j.lrp.2009.11.002

Tranfield, D., Denyer, D. & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management,* 14(3), pp. 207-222. doi:10.1111/1467-8551.00375

Ujwary-Gil, A. & Potoczek, N. R. (2020). A dynamic, network and resource-based approach to the sustainable business model. *Electronic Markets,* 30(4), pp. 717-733. doi:10.1007/s12525-020-00431-6

UN Environment Programme (2020). *Sustainability and circularity in the textile value chain – Global stocktaking*. Nairobi, Kenya. https://wedocs.unep.org/handle/20.500.11822/34184

Vaismoradi, M., Jones, J., Turunen, H. & Snelgrove, S. (2016). Theme development in qualitative content analysis and thematic analysis. *Journal of Nursing Education and Practice,* 6(5). doi:10.5430/jnep.v6n5p100

von Krogh, G. & Cusumano, M. A. (2001). Three strategies for managing fast growth. *MIT Sloan Management Review,* 42(2), pp. 53-61.

Walske, J. M. & Tyson, L. D. (2015). Built to scale: A comparative case analysis, assessing how social enterprises scale. *The International Journal of Entrepreneurship and Innovation,* 16(4), pp. 269-281. doi:10.5367/ijei.2015.0197

Watson, D., Kiørboe, N., Palm, D., Tekie, H., Harris, S., Ekvall, T., Lindhqvist, T. & Lyng, K. (2014). *EPR systems and new business models: Reuse and recycling of textiles in the Nordic region. TemaNord Report for the Nordic Council of Ministers* http://www.norden.org/no/publikasjoner/publikasjoner/2014-539

Wei, Z., Yang, D., Sun, B. & Gu, M. (2014). The fit between technological innovation and business model design for firm growth: Evidence from China. *R&D Management,* 44(3), pp. 288-305. doi:http://dx.doi.org/10.1111/radm.12069

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic management journal,* 5(2), pp. 171-180.

Winter, S. G. & Szulanski, G. (2001). Replication as Strategy. *Organization Science,* 12(6), pp. 730-743. doi:10.1287/orsc.12.6.730.10084

Wolfswinkel, J. F., Furtmueller, E. & Wilderom, C. P. M. (2017). Using grounded theory as a method for rigorously reviewing literature. *European Journal of Information Systems,* 22(1), pp. 45-55. doi:10.1057/ejis.2011.51

World Economic Forum (2019). *The Global Competitiveness Report 2019*.

Yoho, K. D., Ford, R., Edvardsson, B. & Dahlinger, F. (2018). Moving "The Greatest Show on Earth": W.C. Coup as an innovation champion. *Journal of Management History,* 24(1), pp. 76-98. doi:10.1108/jmh-07-2017-0035

Zamani, B., Sandin, G. & Peters, G. M. (2017). Life cycle assessment of clothing libraries: can collaborative consumption reduce the environmental impact of fast fashion? *Journal of Cleaner Production,* 162, pp. 1368-1375. doi:10.1016/j.jclepro.2017.06.128

Zhang, J. J., Lichtenstein, Y. & Gander, J. (2015). Designing scalable digital business models. In *Advances in Strategic Management.*

Zott, C. & Amit, R. (2007). Business Model Design and the Performance of Entrepreneurial Firms. *Organization Science,* 18(2), pp. 181-199. doi:10.1287/orsc.1060.0232

Zott, C., Amit, R. & Massa, L. (2011). The business model: recent developments and future research. *Journal of management,* 37(4), pp. 1019-1042.

Appendices

Appendix A – Interview guide (English version)

This is the general interview guide that was used. It was however modified (before the interview) to fit the individual company and (during the interview) to follow the interview conversation and the answers the respondents gave.

Introductory Information

Purpose with research and interview

The purpose of our research project is to understand the logic behind what makes CBMs scale up. Or perhaps, why so many CBMs remain small-scale. We will conduct interviews with a number of different companies and industry experts that are involved in circular business practices. The purpose of these interviews is to understand strategies, challenges and barriers they have experienced when scaling circular business practices.

How will we use the interview

I would like to record the interview and transcribe it for my analysis. It will be saved by me and only shared within my research team. Quotes from the interview might be used in articles and other research-related work. Please let me know if you wish that the data from the interview should be anonymous.

Who is asking

Before I start I would also like to introduce myself. I'm currently a PhD student at the Swedish school of textile in Borås but I have previously worked in the fashion industry (…)

- ✓ Do you have any questions about the procedure before we start?
- ✓ Are you ok with me starting the recording?

Interview (Areas Of Interest And Potential Questions)

Background

Could you tell me what your role is at *the company*? in relation to the CBM initiative?

What type of circular initiatives do you have at *the company*?

Could you elaborate on the background?
- How did it start?
- Why did it start?
- When did it start?
- Who was involved?
- What was the inspiration?
- What was the first step? (e.g. pilot, just started, finding a partner etc.)

Turningpoint

What kind of problems have you phased when scaling your CBM?

Would you say that there has been a specific event (or resource or partner or similar) that was needed for the CBM to be able to scale?

Could you identify a turning point when something happened that solved any barriers you had to scale up?

Could you identify something that needs to happen for you to take the next step and scale your CBM?

Supply

Where do you get the garments? How?

Routines

Can you describe the process from collecting a garment to the sale of that garment?

Is there something in that process that needs to be solved before opening more stores?

Knowledge

How do you choose what to sell?

How is that knowledge spread in the organisation? (e.g. to new stores, new staff etc.)

Do you have a system for follow-up on sales?

Would you say that you need any specific knowledge to work in *the CBM*? (Managerial level or store staff)

Sales Channels

What type of sales channels do you have? Why?

Are there different challenges with different sales channels?

Different customers?

Is the location important?

Local Adaption

Have you had to make modifications to the business model or routines when opening in new locations?

Partners

Who are your most important partners when it comes to scaling up? Why?

What roles do they have?

What is the division of responsibilities between you? (franchiser, franchisee)

Collaborations with brands?

The Customer

What is your view of the role of the customer in your venture? Only as a consumer or do they have a larger part to play?

Is it the same customer who comes to you as the one who buys in…

- thrift stores?
- conventional fashion stores?

Goal

What do you want to achieve with scaling up? Do you have a clear goal?

What has been the biggest challenge to reach the goal? (Why are you not there yet?)

How do you view *the company's* role in the industry? Do follow a trend or are you working to influence the rest of the industry? Or are you simply doing your thing?

Funding

How have you financed scaling out? Internal or external means?

Other

Is there any aspect of scalability that you think I have missed? Something that I haven't asked you about?

Is it ok if I contact you again if I come up with more questions? (Mail or follow-up interview)

Appendix B – Overview of interviews (a version of this Table is included in Paper 3)

Company ref. Paper 3 / Paper 2	Role of respondent (no. of interviews)	Company size	Description	Product type (only CBM initiative)	Sales channel - Resale	Supplier - Resale
A / L1	Sustainability manager (1)	51-200 employees	Premium fashion brand (a) - Repair (own brand) - Resale (own brand collected from consumers) - Redesign (from post and pre-consumer material) - Garment collection (own brand, used for own CBM initiatives)	Repaired and second-hand jeans, Redesigned denim products	Own B&M Own e-com	Consumers (voucher)
B / L2	Sustainability manager (2)	1,001-5,000 employees	Fast fashion brand retailer (a) - Resale (purchase wholesale from partner) - Rent (own brand) - Redesign (from post and pre-consumer material) - Garment collection (any brand, forwarded to partner organization)	Second-hand garments for ladies	Own B&M	Vintage company
C / C5	Founder, co-founder or owner (2)	2-10 employees	Second-hand clothing retailer (b) - Resale (purchased from consumers or partners operating CBM initiatives)	Second-hand garments and accessories for ladies and to a lesser degree men.	Own B&M Own e-com	Consumers (purchase, previously consignment) Redesign company Fashion brand (consignment)
D	Sustainability manager (1)	1,001-5,000 employees	Sports brand retailer (a) - Resale (facilitates resale through 3rd party peer-to-peer platform) - Garment collection (any brand, forwarded to partner organisation)	Second-hand garments and accessories		
E / L3	Circular business developer (2)	10,001+ employees	Fast fashion retail group (a) - Resale (through peer-to-peer platforms, online marketplace and partnerships) - Rent (own products)	Second-hand garments and accessories for ladies and to a lesser degree men and kids.	Own B&M Own marketplace Peer-to-peer platform run in collaboration	Consumers (consignment) Second-hand Vintage companies

			- Garment collection (any brand, forwarded to partner organisation)		with a partner by partner	
F / L5	Business developer (1)	11-50 employees	Premium outdoor brand (a) - Repair (own brand) - Resale (own brand collected from consumers) - Rent (own products) - Garment collection (own brand, used for own CBM initiatives)	Outdoor garments	Own B&M Own e-com	Consumers (voucher, previously consignment) Surplus from own activities
G	Production manager and designer (1)	2-10 employees	Redesign brand run by charity (b) - Redesign and Repaired (post-consumer garments and accessories donated to parent charity org.) - Resale (a few more exclusive pieces collected through parent charity org.)	Redesigned unisex garments and some more exclusive repaired and second-hand garments/ accessories		
H / C1	Creative director and co-founder (1)	51-200 employees	Second-hand and vintage clothing retailer (b) - Resale (purchased from professional sorter) - Redesign (post-consumer material)	Second-hand garments and accessories for ladies and men.	Own B&M Own e-com Wholesale Other marketplaces	Professional sorting company
I / C2	Sustainability manager (1)	11-50 employees	Second-hand clothing retailer (b) - Resale (customer consignment, unsold items are forwarded to charity)	Second-hand garments and accessories for ladies.	Own B&M Pop-up events (Instagram)	Consumers (consignment)
J / C3	CEO (1)	2-10 employees	Second-hand clothing retailer (b) - Resale (customer consignment)	Second-hand garments and accessories for ladies and men.	Own B&M Own e-com Partner e-com Pop-up events	Consumers (consignment)
K / C4	Owner (1)	51-200 employees	Second-hand clothing retailer operating as a franchising chain (b) - Resale (customer consignment, unsold items are forwarded to charity)	Second-hand garments and accessories for kids and ladies	Own B&M	Consumers (consignment)

L / L4	1: Sustainability manager (1) 2: Manager of CBM initiative (1)	201-500 employees	Premium fashion brand (a) - Resale (own brand) - Garment collection (own brand, used for own CBM initiatives or forwarded to partner organization)	Second-hand, repaired and redesigned garments and accessories for ladies and men.	Own B&M	Consumers (voucher) (Surplus from own activities)

Note: (a) = CBM initiative operated parallel to a linear business model, (b) = Operates a predominantly CBM, B&M = brick-and-mortar store, e-com = e-commerce

Appended papers, abstracts

Paper 1

Hultberg, E. & Pal, R. (2021). Lessons on business model scalability for circular economy in the fashion retail value chain: towards a conceptual model. *Sustainable Production and Consumption*, vol. 28, pp. 686-698. doi: https://doi.org/10.1016/j.spc.2021.06.033.

Abstract
Circular economy and especially circular business model (CBM), is currently being discussed as a way to enable the fashion industry's transition to sustainable business models wherein pollution and resource waste may be reduced. However, one of the prime reasons for a slow transition is lack of scalability of CBMs operating in the fashion retail value chain. What is lacking in the current discourse is research that summarises and condenses the literature on strategies for how scalability can be attained and what that means in context to CBMs where not only economic values are in focus. Therefore, the main purpose of this paper is to explore the main strategic approaches to scale business models and how these can be applied to CBMs in the fashion retail value chain. To do this, a two-part method is adopted consisting of a systematic literature review of 57 business models and scalability papers followed by a review of activities reported by 76 fashion retail companies on how these have, or are planning to, increase the scale of their CBM initiative. Our suggested model provides a basic understanding of strategies for business model scalability seen from four different business model design perspectives. These are further contextualised for CBMs in the fashion value chain and lessons learned are generated in the form of four central propositions. The propositions account on how organisations can leverage resources from their existing conventional business model for efficient scaling of their CBM initiative, how they can consider strategic partnerships to access complementary resources, while also embarking on adaptability by running business pilots either internally or by engaging in collaborative networks for industry-wide learnings and change.

Paper 2

Hultberg, E. & Pal, R. (2021). Scaling resale-based circular business models: A study of Swedish fashion resellers. Presented at *the 4th Conference on Product Lifetimes and the Environment (PLATE) 2021 Virtual Conference*, 26-28 May 2021.

Abstract
In this paper we present challenges that resale-based circular business models (CBMs) face when trying to scale up, as well as strategic resources that mitigates these challenges and facilitate scaling. The study is anchored in empirical findings from 10 retail companies operating with resale initiatives in the Swedish market. To structure the study, and provide a broader view of scalability that better fit the logic of CBM value creation, we draw on two streams of literature; the notion of novelty- and efficiency-centred business model design elements and resource-based theory. The findings show that for resale-based CBMs to scale, these need to overcome challenges related to operational complexity in connection to handling large volumes of unique garments as well as lack of out-of-the-box solutions. The study also offers insights into strategic resources and capabilities which can work as guidance for practitioners who want to analyse and manipulate their CBM's ability to scale.

Paper 3

Sandberg, E. & **Hultberg, E.** (20xx). Dynamic capabilities for scaling of circular business model initiatives in fashion industry. Submitted to an international peer-reviewed journal (Under review).

Abstract
The scaling of circular business models (CBMs) plays a decisive role in the transformation toward more sustainable business practices. The purpose of this paper is to explore the microfoundations of dynamic capabilities (DCs) involved in the scaling of CBM initiatives. Based on semi-structured, in-depth interviews with 12 Swedish retail fashion companies, this research outlines a variety of microfoundations involved in CBM scaling practices. The Swedish fashion sector offers a rich empirical basis for further exploration of the microfoundations required for the scaling of CBMs. The study is theoretically grounded in a combination of the three DC classes of sensing, seizing, and reconfiguring, and the three scaling logics of scaling out, scaling up, and scaling deep. This combination provides several new insights with respect to the expansion and growth of CBMs. In particular, the research emphasizes the actual activities and processes involved in efforts toward the scaling of CBM initiatives, which have so far only been researched to a minor extent. Furthermore, the application of different scaling logics offers clarity and a constructive understanding of how circular business practices can be scaled beyond the individual firm or CBM initiative. For practitioners, the combination of DC classes and scaling logics into a 3X3 matrix offers a tool for the identification, understanding, and organization of the dynamic capabilities required for different scaling logics of CBMs.