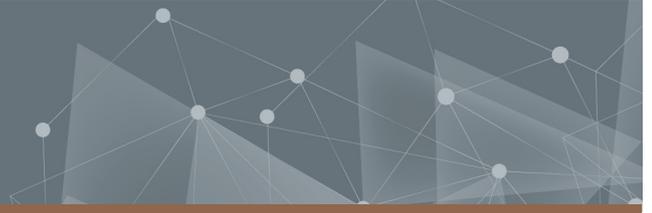




**CHALMERS**  
UNIVERSITY OF TECHNOLOGY



# Exploring Orchestration to Enable Joint Value Creation in Emerging Circular Ecosystems

A Case Study in the Outdoor Retail Industry

Master's thesis in Management and Economics of Innovation

**EBBA ANDHULT**  
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**DEPARTMENT OF TECHNOLOGY MANAGEMENT AND ECONOMICS**

Division of Entrepreneurship and Strategy

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CHALMERS UNIVERSITY OF TECHNOLOGY

Gothenburg, Sweden 2024

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## **Abstract**

The resource-intensive nature of the retail industry necessitates a shift towards circularity, requiring collective stakeholder support to transition from linear value chains to circular economies. While existing literature often addresses the challenges of the retail industry, there remains a gap in exploring the outdoor retail industry and its emerging ecosystems, which is crucial for the circular transition.

This master's thesis examines the circular ecosystem within the outdoor retail industry in Sweden, in collaboration with Haglöfs. Through a qualitative single case study, involving interviews and document analysis, the study explores value creation within the ecosystem and identifies critical practices for effective orchestration.

The study identifies three phases of ecosystem emergence from the perspective of a central firm—acceleration, transition, and orchestration—illustrating Haglöfs' evolution from a network accelerator to a central orchestrator. To comprehend the central actor's role in the acceleration phase, three overarching themes emerge; external image disparities, internal value generation, and the initiation of second-hand item volume. In the transition phase, the importance of sustainable business model development and new infrastructure is highlighted. In the orchestration phase, efficient collaboration efforts and value creation systems surface as two primary themes, offering deeper insight into Haglöfs' orchestrator role.

The study has found that each of the identified phases presents multiple barriers that must be overcome to drive the ecosystem's evolution. To overcome these barriers, twelve key practices for guiding a central actor through each phase were identified, emphasising relationship management, value creation, and resource allocation. The practices help guide the central actor in strategic decisions and shifting priorities as the ecosystem evolves. These practices are intended to adapt as the ecosystem matures, ensuring dynamic and effective joint value creation.

Keywords: circular economy, outdoor retail industry, circular ecosystems, joint value creation, sustainability, ecosystem orchestration, ecosystem emergence



# Acknowledgements

This master's thesis was conducted during the spring of 2024 at the Department of Technology Management and Economics, under the Division of Entrepreneurship and Strategy at Chalmers University of Technology. The project was carried out in collaboration with the outdoor retail company Haglöfs.

First, we would like to express our sincere gratitude towards Susanne Ollila, our supervisor and examiner at Chalmers University of Technology. We are thankful for the opportunity to work on this project under her expert guidance. Her insights and support have been helpful in shaping our research and methodology, providing us with positive energy during the ups and downs of the thesis work.

Second, our genuine thanks go to our supervisors from Haglöfs, Victor Adler and Sara Skogsberg. Their continuous assistance in connecting us with the right people within Haglöfs and their critical insights have significantly shaped the scope of our thesis. Their contributions have been essential in refining our thesis. We will miss the enlightening and fun Friday check-ins with Victor and Sara.

Third, we want to express our appreciation to all the interviewees at Haglöfs, whose invaluable contributions have made this research possible. Your willingness to share your experiences and knowledge has been fundamental to the success of this thesis.

Finally, we are grateful to the opponents of our thesis for their valuable feedback, which has helped enhance the quality and clarity of our work.

Ebba Andhult and Ida Hansson Häggstrand, Gothenburg, May 2024



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# 1. Introduction

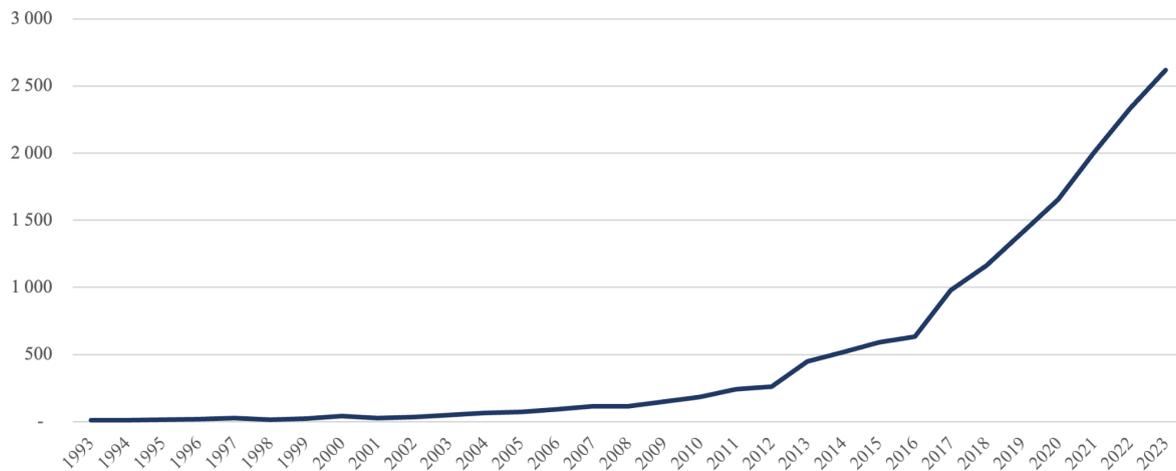
In the exploration of innovation and its central role in enhancing a firm's performance and contributing to economic growth, the foundational perspectives were first articulated by Schumpeter (1942). Schumpeter's insights laid the groundwork for understanding the impacts of innovation on the economic landscape. Following Schumpeter's early work, innovation research has experienced substantial growth, particularly noticeable during the 1990s and early 2000s.

Over time, the perspective on innovation has undergone a significant evolution. Initially centred around the contributions of individual firms, the current view has expanded to innovation within ecosystems. According to Baldwin et al. (2024), these ecosystems comprise a network of autonomous actors—including individuals, firms, universities, and public agencies—that collaboratively develop products and systems. The resulting value of these collective efforts exceeds that which could be achieved by the actors operating independently, underscoring the synergistic nature of innovation ecosystems.

Since 2010, there has been a notable surge in scholarly publications focusing on business-related ecosystems, including innovation ecosystems, platform ecosystems, entrepreneurial ecosystems, and knowledge ecosystems. This exponential increase in research activity, as shown in Figure 1.1, underscores the growing recognition of the critical importance of ecosystems. The growing interest and volume of research in this area reflect the centrality of ecosystems in driving economic growth and enhancing firm performance through collaboration.

**Figure 1.1:**

*Number of Ecosystem Articles Published in Scopus 1993-2023*



Note: The articles have Subject area limited to Business, Management and Accounting and have Article title, Abstract or Keyword that contain “ecosystem” or “ecosystems”.

Another evolution seen in practice is the way firms share knowledge. Moving away from traditional methods of control, patents, and security, there has been a significant turn towards collaborating and sharing sources of knowledge (Baldwin et al., 2024). As Dahlander et al. (2021) highlights, this transition represents a new paradigm in innovation management, emphasising the importance of collaborative and open approaches to innovation.

The collaborative approach has gained traction across various sectors, and have notably influenced the outdoor retail industry in the paradigm shift towards sustainability. The Ellen MacArthur Foundation (2021) forecasts a significant escalation in the negative environmental impacts of the clothing industry, which the outdoor retail industry is a part of, by 2030, underscoring the urgent need for sustainable business practices. Within the clothing industry, the current patterns of the product life cycle present numerous environmental challenges, as identified by Moran et al. (2021).

The OECD (2019) emphasises that enhancing resource efficiency and adopting circular economy principles are imperative to mitigate raw material wastage and environmental degradation. The resource-intensive nature of clothing production presents a compelling case for a transition towards circularity, as argued by Salmi and Kaipia (2022). Such a transition, according to Lieder and Rashid (2016), requires the collective support of all stakeholders in order to move away from linear value chains to a circular economy. The need for collaboration has sparked an interest in exploring ecosystems within the outdoor retail industry as a means to facilitate the movement towards circularity.

## 1.1 Background

Given the growing interest in innovation ecosystems in recent research, this master's thesis will look deeper into the nuances of emerging ecosystems by looking at the emerging circular ecosystem in the outdoor retail industry. The case company chosen for this thesis is Haglöfs, an outdoor retail company located in Sweden. This thesis will focus on the early stages of emergence of a circular ecosystem with Haglöfs as the orchestrator. According to Autio (2021), an ecosystem orchestrator is commonly a central firm in the ecosystem that deliberately encourages joint value creation, and is a well-documented concept in literature. However, there exists a gap in the research concerning the specific actions firms can undertake to successfully orchestrate an innovation ecosystem from emergence to maturity (Autio, 2021). The circular ecosystem explored in this thesis is an innovation ecosystem focused on circular activities in the value chain related to repair and resale activities for Haglöfs. This thesis aims to bridge the literature gap by exploring the tangible steps and practices involved in ecosystem orchestration during its emergence.

One critical aspect underpinning the development of innovation ecosystems is the creation of joint value. Song et al. (2024) shed light on the complex balance between generic and specific components to create value within an ecosystem, where specific components are designed for the focal ecosystem while the generic components can be used outside of it. The authors suggest that in the early phases of ecosystem evolution, relying on generic components may be the most feasible strategy for fostering value creation, as specific components are costly and time-consuming. This is where Haglöfs' circular ecosystem for their repair and resale activities currently is positioned, as it is yet to form. The complexity of developing and sustaining innovation ecosystems highlights the need for strategic alignment and adaptability among ecosystem participants.

Furthermore, there is a trend in the literature on the emergence of ecosystems to focus on value creation in technical ecosystems and software development (Baldwin et al., 2024). However, the domain of physical ecosystems, particularly those similar to the outdoor retail industry, remains largely unexplored. This is especially true for joint value creation and the orchestration of an emerging circular innovation ecosystem.

Therefore, this master's thesis is positioned at the forefront of addressing this significant research gap. By focusing on the outdoor retail industry, the study seeks to uncover the enablers of joint value creation, barriers to orchestration and practices that the central actor can use to facilitate the successful emergence of a circular innovation ecosystem. Through this exploration, the thesis aims to contribute valuable insights and understandings to the field of ecosystem emergence, highlighting the unique challenges and opportunities in fostering circular ecosystems within the context of the outdoor retail industry.

## 1.2 Problematization

For Haglöfs to be at the forefront of developing the circular ecosystem in the outdoor retail industry and enhance joint value creation, it is essential to understand ecosystem emergence and orchestration practices. The literature on ecosystem development within the outdoor retail industry is scarce, highlighting a significant research gap. Mastering the practices needed for orchestrating a circular ecosystem is vital for Haglöfs, particularly for developing an ecosystem for repair and resale activities. By delving into the practices needed for ecosystem orchestration, this thesis aims to equip the outdoor retail industry with insights necessary for orchestrating an emerging circular ecosystem. Thereby this thesis addresses the critical knowledge gap of enabling joint value creation in emerging ecosystems in the context of the outdoor retail industry.

## 1.3 Purpose and Detailed Research Questions

The purpose of this study is to explore how an orchestrator can enable joint value creation in the emerging circular ecosystem for repair and resale activities within the outdoor retail industry, particularly by examining the practices needed to orchestrate the emerging circular ecosystem. By exploring the potential emerging circular repair and resale ecosystem, the study aims to contribute to the theoretical understanding of emerging circular ecosystems and the practices for joint value creation within the ecosystem in the context of the outdoor retail industry.

The study will include an exploration of the processes that will make up the foundation for Haglöfs' emerging circular repair and resale ecosystem, focusing on how Haglöfs can orchestrate the ecosystem to contribute to joint value creation. Additionally, the study will explore the practices needed to orchestrate the circular ecosystems in the outdoor retail industry for companies like Haglöfs. To fulfil the purpose of this study, the following research questions will be answered;

- *How can a prospective ecosystem orchestrator enable joint value creation in the emerging circular ecosystem of the outdoor retail industry?*
  - *What are the key processes that are needed to support the emerging circular ecosystem?*
  - *What barriers to successful orchestration need to be overcome in the different stages of the ecosystem emergence?*
  - *What practices can the central actor use to enable joint value creation in the emerging ecosystem?*

Through answering the research questions and fulfilling the study's purpose, the thesis aims to provide actionable recommendations to companies in the outdoor retail industry on how to effectively orchestrate and jointly create value in emerging circular ecosystems. Moreover, the thesis will look at strategic approaches for firms like Haglöfs, focusing on what practices are needed to orchestrate the emerging circular ecosystems. Finally, this study aims to

contribute to both theoretical and practical insights, enhancing the understanding of emerging circular ecosystems and the practices needed for orchestration for an actor like Haglöfs with the ambition to create a circular ecosystem.

## 1.4 Delimitations and Limitations

To fulfil the purpose of the study, several delimitations and limitations have been made. Initially, the study's literature review concentrates on value creation in emerging ecosystems, with a specific emphasis on circular ecosystems related to the outdoor retail industry. However, the scope has consciously been limited to ecosystem orchestration associated with emerging ecosystems. It particularly excluded elements of the manufacturing value chain not directly linked to the secondary market in the outdoor retail industry. The value creation studied in this thesis has been limited to the value created by the actors in the emerging circular ecosystem.

The research has been conducted as a single case study, examining Haglöfs in-depth. This approach brought certain limitations, as the majority of the data collection have been sourced from interviews and documents from Haglöfs. While this offered interesting insights into the company, it may have limited the generalizability of the findings to other organisations and broader contexts. However, Flyvbjerg (2006) argues against the common misconception that generalisations cannot be drawn from a single case, suggesting that significant, applicable insights can emerge from such focused research. Flyvbjerg also underscores the potential for extracting valuable scientific insights from a single case study. Therefore the insights drawn from Haglöfs can be used in a greater context.

Further constraints have been limited by practical considerations. The study has been bound by a 23-week timeframe, making it necessary to have a confined sample size and data collection period. Additionally, a Non-Disclosure Agreement (NDA) with Haglöfs has been written and certain information obtained have not been disclosed in the thesis. This limitation, however, has been somewhat mitigated by the fact that most of the gathered information has been non-confidential and thus suitable for inclusion in the study.

In conclusion, while this thesis has been dedicated to exploring the emerging circular ecosystems of Haglöfs in the outdoor retail industry, it recognized the constraints imposed by its focus on a single case study, the time limitations, and the NDA conditions. Despite these challenges, the research aimed to contribute valuable theoretical and practical insights into the emerging circular ecosystems in the outdoor retail sector.

## 2. Theoretical Background

To better understand the complexity of ecosystem creation in the outdoor retail industry, the theoretical background discusses relevant concepts in literature. The following chapter therefore presents literature on circular ecosystems, focusing on their emergence, orchestration, and value creation, with a focus on sustainability within the circular economy. In this section, relevant concepts are brought forward to create a theoretical framework that is later used to discuss the study's findings.

In emerging ecosystems, four key enablers are identified as crucial for fostering collaboration, innovation and strategic alignment among stakeholders (Fang et al., 2020; Jacobides et al., 2018; Goswami et al., 2018; Khanagha et al., 2020). The concept of circular ecosystems is highlighted, emphasising the shift towards resource efficiency and sustainability, necessitating a systemic approach that extends beyond individual firms to collaborative networks. Ecosystem orchestration is discussed as a strategic coordination of stakeholders to facilitate growth and sustainability, involving resource and network orchestration. Lastly, the theoretical background discusses value creation in ecosystems, showing the importance of balancing generic and specific complementarities to enhance the collective value proposition and align customer perceptions with product and service offerings. This theoretical background contributes to understanding how ecosystems can sustain and thrive over time, emphasising the emergence of circular ecosystems.

The perspective of “ecosystem as affiliation” by Adner (2017) will be used during this study. According to Adner (2017), the “ecosystem as affiliation” viewpoint is central, especially in the context of the circular economy. Ecosystem as affiliation has an actor-centric view of the ecosystem. The concept emphasises the need for a comprehensive consideration of all stakeholders involved in the material flow chain to achieve circularity, underlining the importance of stakeholder collaboration. This perspective is particularly relevant as it underscores the necessity of engaging a wide array of actors in the creation and sustainability of circular ecosystems.

### 2.1 Emerging Ecosystems

The emergence of ecosystems is not spontaneous but requires coordination and collaboration between actors. There are four types of enablers that successfully enable and facilitate the emergence of an ecosystem. These types of facilitators are temporary gatherings (Fang et al., 2020), technical modularity (Jacobides et al., 2018), intermediating institutions (Goswami et al., 2018) and competitive pressures (Khanagha et al., 2020). These enablers are levers that ecosystem architects, i.e. central actors, can use to initiate or accelerate the emergence of ecosystems.

The article by Fang et al. (2020) investigates how temporary gatherings influence the diffusion of platforms among the members. The study reveals that temporary gatherings, specifically hackathons, have four main pathways- hackathon sponsorship, social learning,

knowledge exchange and social coordination- through which hackathons facilitate platform adoption. The gatherings do not only increase awareness of a platform through sponsorship but also enable developers to learn from each other's experiences, share knowledge, and coordinate on platform adoption, thereby fostering the ecosystem around the platform.

The second enabler, modularity, is presented by Jacobides et al. (2018). The authors describe how modularity enables the emergence of ecosystems by facilitating coordination among independent yet interdependent organisations. The authors argue that ecosystems are characterised by a structured yet flexible arrangement of roles and relationships, fostered by technological platforms. Modularity can enable the dynamic integration of complementary innovations that lead to the emergence and growth of ecosystems without a need for hierarchical control (Jacobides et al., 2018). The study emphasises the importance of technological affordances in creating the conditions for ecosystems to thrive by enabling organisations to innovate, collaborate, and capture value in interdependent networks.

The third factor important for an ecosystem's development is accelerators as an intermediate institution (Goswami et al., 2018). An accelerator contributes to ecosystem development by providing connection, development and coordination. Accelerators can generally play a critical role in providing startups with the necessary resources, mentorship and capital. These support functions enable accelerators to act as intermediaries, fostering the growth of ventures and enhancing the overall entrepreneurial ecosystem (Goswami et al., 2018).

The last facilitator is a competitive advantage. Khanagha et al. (2020) describe how Cisco Systems, a global company with products and services within networks and computer communication, based in the US, responded to competitive pressures from dominant cloud platforms by developing the fog computing platform. The strategic move allowed Cisco to utilise its capabilities and establish a new ecosystem that complemented existing cloud technologies. By fostering a mutually beneficial relationship instead of direct competition, the company showed how competitive pressure catalysed the creation of new ecosystems that coexist.

In summary, the research by Fang et al. (2020), Jacobides et al. (2018), Goswami et al. (2018), and Khanagha et al. (2020) collectively underscore the importance of diverse enablers in the successful emergence and evolution of ecosystems. These enablers—temporary gatherings, technological modularity, accelerator programs, and competitive pressures—serve as critical tools that central actors can use to spark and accelerate the development of dynamic ecosystems. Each enabler plays a unique role, from fostering platform adoption through temporary gatherings and enhancing inter-organizational coordination via modularity, to facilitating venture growth through accelerators and leveraging competitive pressures to innovate and create new ecosystems. Together, these elements highlight the multifaceted approach required to sustain ecosystems, emphasising the synergy between social, technological, and competitive dynamics in driving ecosystem emergence and growth. This multi-perspective view provides a comprehensive framework for understanding how various factors contribute to the dynamic, interconnected and complex nature of ecosystems.

## 2.2 Circular Ecosystems

The textile and clothing industry is shifting towards circular business models, with a shared emphasis on resource efficiency and sustainability (Salmi & Kaipia, 2022; Kanda et al., 2021). The concept of circular business models has evolved from circular economy (CE). The CE has emerged as a central paradigm for environmental sustainability, aiming to reshape economic structures by reducing resource usage and waste generation (Aarikka-Stenroos et al., 2021; Pietrulla, 2022). Decoupling revenues from raw material production can significantly reduce greenhouse gas emissions (Ellen MacArthur Foundation, 2021). This transition disrupts the status quo and established norms, influencing collaborations and competition among various actors. The shift towards circular business models demands a systemic approach, extending beyond individual firms to collaborative networks and multi-stakeholder coordination (Pietrulla, 2022).

To understand the complexity of sustainability transitions within the textile industry, an ecosystem perspective is needed. Central to this shift is the idea of circular ecosystems, emphasising resource efficiencies, material flows, and interdependencies among actors. From the ecosystem perspective, the business models of relevant actors in the ecosystem are as important as the one of a focal firm (Adner, 2017), contrasting the individual firm perspective.

The concept of circular ecosystems in literature remains a work in progress, marked by evolving definitions and a lack of theoretical clarity (Kanda et al., 2021). Definitions of the circular ecosystem are multiple, describing it as a dynamic and potentially self-organising configuration where actors integrate resources to co-create circular value flows (Aminoff et al., 2017), and an evolving set of actors and activities that are crucial for innovative performance within a circular economy (Wurster et al., 2020). Based on these definitions, Trevisan et al. (2022) introduce a broader definition, characterising a circular ecosystem as a system of interdependent and heterogeneous actors beyond industrial boundaries, collectively driving toward a circular value proposition for economic and environmental sustainability. However, the literature acknowledges the limited theoretical clarity and emphasises the need for further conceptual development (Aarikka-Stenroos et al., 2021).

Circular ecosystems operate as interconnected networks producing outcomes greater than individual actors' contributions (Aarikka-Stenroos et al., 2021). To be able to achieve this outcome surplus, these ecosystems often focus on innovation and rely on multi-stakeholder collaboration to co-create sustainable value propositions, emphasising reuse, recycling and reduction. For example, in circular value creation, customers are transformed into active participants (Aarikka-Stenroos et al., 2021; Zhong & Pearce, 2018). Adner (2017) contributes insights into the organisational structure of these ecosystems, presenting two views; the actor-centric "ecosystem as affiliation" and the activity-centric "ecosystem as structure". In the circular economy context, "ecosystem as affiliation" stresses considering all stakeholders in the material flow chain for circularity. Meanwhile, "ecosystem as structure" highlights coordinating activities like collecting materials at the end of a product's lifecycle.

Key principles in circular ecosystems involve narrowing, slowing, closing and regenerating material and energy flows to optimise value and minimise environmental impact (Konietzko et al., 2020).

Actors are central to the development and commercialisation of innovations (Trevisan et al., 2022), but managing coordination across the value chain presents a significant challenge. Particularly, concerns related to incentive structures, risk-sharing and evolving roles and responsibilities among ecosystem partners need to be addressed (Parida et al., 2019). Efficient coordination and collaborative strategies are needed to realise the transformative potential of circular economies.

The diverse nature of the actors within the textile industry's circular ecosystem introduces a level of complexity but also fosters problem-solving with the presence of complementary capabilities (Brooks, 2013). Managing the complementarities is critical, as the structural interdependence among actors are key to reducing conflicts in the ecosystem (Trevisan et al., 2022; Parida et al., 2019). Aligning interests on firm-level and ecosystem level is essential and there is a need for shared goals and purpose in achieving circular objectives (Konietzko et al., 2020). Due to this collaborative nature of circular ecosystems, there is a constant evolution of actor roles and their agency through negotiations and sensemaking (Aarikka-Stenroos et al., 2021). To make this collaboration effective, trust is critical. The absence of trust can hinder the entry of new actors and inhibit information sharing (Trevisan et al., 2022; Hakanen & Rajala, 2018). The evolving roles and relational dynamics among the actors in the ecosystem highlight the intricate nature of circular ecosystems in the circular economy.

## 2.3 Ecosystem Orchestration

Ecosystem orchestration in the context of circular ecosystems involves the strategic coordination and integration of diverse stakeholders to facilitate joint value creation and sustainability. This coordination aims to achieve system-level outcomes, particularly sustainable value propositions in the ecosystem (Adner, 2017). It entails managing circular customer offerings, supply chain activities and partnerships within the circular ecosystem. The current research on orchestration in ecosystems is sparse, with multiple definitions being presented (Pitelis & Teece, 2018). However, two major directions of research contribute to the understanding of orchestration as a concept; resource orchestration and network orchestration (Sandberg, 2023; Shi & Shen, 2021). Resource orchestration emphasises the importance of combining valuable and heterogeneous resources of multiple actors to achieve value creation. Continuous structuring, bundling, and leveraging of internal resources, along with the integration of external resources through alliances, are vital components of resource orchestration. On the other hand, network orchestration focuses on managing knowledge mobility, innovation appropriability and network stability. While resource orchestration focuses on individual company value creation, network orchestration emphasises managing relationships and creating value for the entire network (Shi & Shen, 2021).

According to Parida et al. (2019), effective orchestrators provide stability, simplify connections between stakeholders, and encourage innovation within the ecosystem. If done correctly, ecosystem orchestration fosters collaboration, optimises material flows and facilitates the transition towards a circular economy. To achieve effective ecosystem orchestration, orchestration capabilities are needed.

Orchestration capabilities refer to the dynamic capacity of central actors to efficiently integrate and coordinate resources and relationships within ecosystems, adapting to continuously changing environments and driving the transition towards a circular economy (Shi & Shen, 2021). These capabilities, as identified by Sandberg (2023) and Shi and Shen (2021), manifest in three overarching dimensions; managing circular customer offerings, circular supply chain activities and partnering within the circular ecosystem. Firstly, the effective management of circular customer offerings requires integration across diverse channels, incentivising circular practices and educating customers on sustainability. Secondly, orchestration extends to circular supply chain activities, including the identification, analysis and improvement of internal and external processes. Lastly, partnering in circular ecosystems requires continuous exploration, emphasising relationship portfolio management and decision-making processes for collaborative design. Together, these dimensions involve integrating diverse channels, optimising internal and external processes, and fostering continuous exploration and collaboration.

The capabilities described above are essential for the orchestrator in the circular ecosystem. The role of an orchestrator is often assumed by a powerful focal firm (Pitelis & Teece, 2018). This central orchestrator plays a crucial role in coordinating diverse stakeholders and navigating the complexities associated with the shift to circular business practices (Kanda et al., 2021; Salmi & Kaipia, 2022). Key tasks for an orchestrator involve collaborative efforts and goal alignment, both internally and among ecosystem actors (Sandberg, 2023). It also encompasses the integration and coordination of physical stores, online resources, logistics activities, and sales staff to encourage circular practices among customers. Additionally, Pitelis and Teece (2018) suggest that orchestrators need to possess the resources and capabilities to facilitate value creation, innovation, and sustainable business models within the ecosystem. The implications of a central actor being the orchestrator include institutional stability, fostering transparency among partners, and actively investing in ecosystem transformation. Orchestrators play a crucial role in nurturing ecosystem transformation, leveraging their capabilities to drive towards greater sustainability and efficiency within the circular ecosystem.

## 2.4 Value Creation in Ecosystems

Joint value creation is a necessary and important factor in ecosystems but demands active effort from ecosystem participants. In ecosystems, there is a tension between generic and specific complementarity (Song et al., 2024). Generic complementarity occurs when a product or service, despite being essential for fulfilling the value proposition, is standard and does not need specialised coordination among stakeholders. The authors describe that a specific complementarity, on the other hand, is when a certain level of relationship-specific coordination and non-convertible investments are made among the actors. In an emerging ecosystem, generic complementarities might be the only option, even though specific complementarities create more value for the customer than the generic. Specific components require making specific investments which are not done when demand is limited (Song et al., 2024). The authors describe the role of interdependence, non-generic complementarity, joint value creation, and compelling ecosystem value proposition in driving the transition from an emerging to a thriving ecosystem.

Song et al. (2024) argue that the following four elements are critical for a thriving ecosystem; multilateral interdependence, specific complementarity, collective value creation and value proposition. Interdependence emerges when ecosystem actors depend on others to create value and closely collaborate to succeed. The definition provided by Song et al. (2024) underlines the importance of common value creation in an ecosystem for it to thrive. Value creation is also of the highest importance in order for an ecosystem to sustain itself. Baldwin et al. (2024) discuss the difficulties of innovation ecosystems and emphasise the importance of autonomous actors collaborating towards a common value proposition. The value created together in the ecosystem needs to be greater than the value created separately. This complementary surplus highlights the collective aim of the ecosystem members to create innovations.

For the ecosystem to work long-term, all parties must gain value. In a circular ecosystem, the customer is part of the ecosystem and also has to perceive value for themselves (Sandberg et al., 2018). Concerning customer value creation within a circular economy there are four value creation logics: resurrect, share, optimise and replace value (Ranta et al., 2020). The value creation logic resurrect is relevant for the repair and resale of circular ecosystems and is visualised in Table 2.1. The resurrect value refers primarily to product and process innovations that enable companies to restore used and disposed products through recycling or refurbishment and further return the products to the market (Ranta et al., 2020). The authors underline that the perceived value for the customer usually is lower after resurrect but that there have been initiatives where the refurbished product has been given the same warranties as new products. Recurrent products typically emphasise economic and environmental benefits in order to direct customers to choose the recurrent product. This can be done with lower purchasing prices and equal functionality. The lower prices might give the message that the product is of lower quality than the reused, restored and non-new products.

**Table 2.1**  
*Resurrect Value Creation Logic Inspired by Ranta et al. (2020)*

Value creation logic	Defining characteristics	Core principle visualized
Resurrect value	Resurrecting the diminished value of resources and returning them to the market	

For a purchase of a product to take place the perceived use-value has to be higher than the exchange value. The use value is defined as the perceived usefulness of the product (Bowman & Ambrosini, 2000). This refers to the specific qualities of the offered service or product concerning the customers’ needs. The use-value is therefore a subjective value that is determined by the individual customer at a given time (Sandberg et al., 2018). The exchange value on the monetary price can be defined as “the amount that is paid by the buyer to the seller for the value” (Bowman & Ambrosini, 2000).

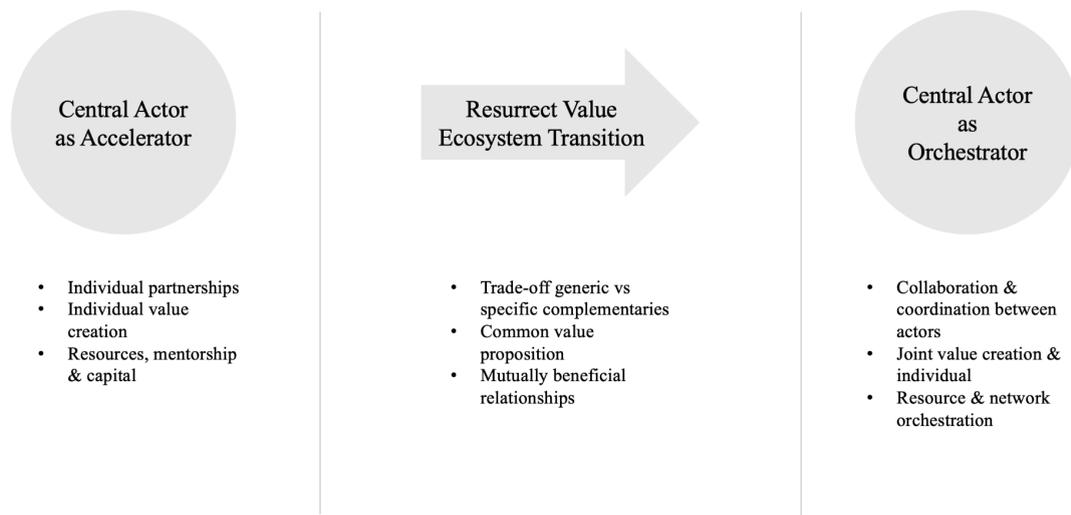
To conclude, the complex mechanisms of value creation within ecosystems, highlight the fine balance between generic and specific complementarities as critical for both the birth and growth of interconnected networks. The theory underscores the importance of fostering relationships, investments, and strategic coordination among actors to enhance the collective value proposition. Moreover, the discussion about customer value creation, especially within circular economies, sheds light on the central role of customer perception in the longevity and sustainability of ecosystems. By demonstrating that the perceived value of products or services—whether through innovation, pricing strategies, or quality assurances—must surpass the exchange value to facilitate transactions, the theory underscores a fundamental principle: the success of any ecosystem relies not only on the synergistic efforts and contributions of its participants but also on its ability to consistently deliver perceived value to its customers. This dual focus on internal collaboration and external satisfaction is what ultimately enables ecosystems to thrive, innovate, and sustain over time.

## 2.5 Our Perspective on the Orchestration of Circular Ecosystem Emergence

The theoretical framework presented in the following section intertwines with the purpose of this thesis by focusing on the intricate creation of joint value creation within emerging circular ecosystems, with a specific lens on resurrect value creation. Through this theoretical lens, the aim is to shed light on the essential practices necessary for effectively orchestrating these evolving circular ecosystems.

**Figure 2.1**

*Key Phases of the Orchestration of Circular Ecosystem Emergence*



The theoretical framework in Figure 2.1, illustrates the acceleration, transition and orchestration phases within ecosystem emergence. The Figure underscores the transition made by a central actor, going from a network accelerator to an ecosystem orchestrator. The acceleration phase is focused on individual partnerships and value creation, and the resources are mostly internal. In the transition, foundational elements crucial for the emergence of a resurrect value ecosystem are; strategic trade-offs between generic and specific complementarities, the establishment of a common value proposition, and the creation of mutually beneficial relationships. The orchestration phase is characterised by close collaboration between ecosystem actors and a focus on joint value creation and resource and network orchestration.

This framework combines the theoretical foundations of circular ecosystems, resurrect value, and the phases of acceleration and orchestration. It offers a comprehensive lens through which to analyse joint value creation within the outdoor retail industry's emerging circular repair and resale ecosystems.

## 3. Methodology

This master's thesis has conducted a qualitative study of the emerging circular ecosystem in the outdoor retail industry, and the research design chosen was a single case study and the research followed an inductive approach. Case studies as a research design are widely used in business and management research, as they bridge qualitative evidence and mainstream deductive research (Eisenhardt & Graebner, 2007). The main criteria used to evaluate a case study focus on four categories closely related to the main stages of designing and conducting case study research; research design, data collection, data analysis and reflection of quality (Goffin et al., 2019). To ensure a high-quality study this master's thesis has put great importance on these steps. The research design has formed to be suitable for research in new fields and the data collection method used followed the same logic, where interviews are the primary data collection for prospective research. The data analysis method that was used is the Gioia method, originally formulated by Gioia et al. (2012). It is a method for inductive research that emphasises a systematic approach to qualitative data analysis.

The concept of circular ecosystems within the outdoor retail industry is a new and relatively unexplored topic in literature, which is why a case study is a suitable research method. Exploring the topic in a real business environment will allow for theoretical contributions in the field of circular ecosystems and the creation of practical implications for this topic. This is further supported by the notion made by Stake (1995), who argues that case studies can be used as a means to understand a broader issue.

The choice of case company and the reasoning behind the choice is also of great importance (Goffin et al., 2019). The sampling strategy for this choice has been guided by both theoretical sampling and convenience sampling. It has become evident that there is limited theory on the emergence of circular ecosystems in the outdoor retail industry, creating a gap in research that the thesis aims to fill. The case company selected for this study is Haglöfs, a Swedish outdoor retail company, which was selected as it has high accessibility and availability to the two researchers conducting this study. Haglöfs is in the early stages of creating a circular ecosystem in the outdoor retail industry and is therefore of theoretical interest to study. According to Stake (1995), the opportunity to learn should be the main guidance in the selection of a case organisation. This thesis has used Haglöfs as a case company, as it is at the forefront of sustainability in the outdoor retail industry in Sweden and offered an interesting observation for business model development.

### 3.1 Data Collection

When using an inductive research approach, it is important to use a selection of data collection methods to improve the validity of the study (Bell et al., 2019). The aim of using multiple methods is to cancel out the limitations of one method with the use of another. This study has used both interview data and documents for the data collection. However, the main data collection tool has been the interview study in this thesis.

Interviews were used in collaboration with data collection by reviewing documents from Haglöfs. Further details on the two sources will be given below.

### 3.1.1 Interview data

The research methodology included two types of qualitative interviews to address the research question about the emerging circular ecosystem in the outdoor retail industry: semi-structured and unstructured. Combining the two types of interviews allowed the study to focus on specific topics while enabling respondents to express their thoughts and fostering nuanced responses (Bell et al., 2019). The unstructured interviews were primarily conducted to gain background information and contextual understanding, as well as to develop a foundational framework for the interview guide and participant selection for the following semi-structured interviews. The semi-structured interviews had the purpose to gather the core empirical data for the study. The aim was to conduct ten to fifteen semi-structured interviews, with people from multiple levels of the organisation to obtain an overview of the organisation.

An interview guide was prepared, but the order of questions varied and additional questions were added as new, relevant topics were identified during the interviews. During the unstructured interviews written notes were kept as a reference, and the semi-structured interviews were recorded and transcribed for more nuanced analysis. This is with consent obtained prior to the recording and the questions were shared in advance with the respondents. The interviews were mostly conducted face-to-face at Haglöfs' and other interviewees' offices but some interviews were conducted through Zoom and Microsoft Teams, as presented in Table 3.1. The table also shows that eleven interviews were held and each interview lasted between 30 minutes and one hour. During some of the interviews, the theory was incorporated into the interviews to further deepen the investigation of certain concepts. This was done by using visualisation.

The sampling method that was used in the study was not limited to a specific department but based on the knowledge and expertise of individuals (Bell et al., 2019) The first step, theoretical sampling, involved selecting individuals with specific expertise within circular initiatives and sustainability practices at Haglöfs. Given the company's commitment to circularity and sustainability, snowball sampling was used to expand the number of participants through recommendations and ensure a relevant data set (Bell et al., 2019).

Determining the sample size is a critical aspect of qualitative research. The sample size was carefully balanced to achieve theoretical saturation and allowed for in-depth, case-specific analysis (Onwuegbuzie & Collins, 2015). Snowball sampling enabled this balance and ensured a comprehensive and focused data collection process.

**Table 3.1**  
*List of Respondents*

Respondent	Company	Role	Duration	Where	Date
R1	Haglöfs	Senior, Finance & IT	1h	Face-to-face	20/2-2024
R2	Haglöfs	Senior, Design & Product Development	1h	Face-to-face	20/2-2024
R3	Haglöfs	Senior, Quality	1h	Face-to-face	20/2-2024
R4	Haglöfs	Senior, Quality	1h	Face-to-face	20/2-2024
R5	Haglöfs	Senior, Design & Product Development	30 min	Face-to-face	21/2-2024
R6	Haglöfs	Senior, Quality	1h	Face-to-face	21/2-2024
R7	Haglöfs	Senior, Sales	1h	Face-to-face	21/2-2024
R8	Haglöfs	Senior, Sales	45 min	Teams	21/2-2024
R9	Haglöfs	Senior, Sustainability & Business Development	30 min	Face-to-face	21/2-2024
R10	Haglöfs	Senior, Sustainability & Business Development	45 min	Teams	29/2-2024
R11	Haglöfs	Senior, Operations	45 min	Zoom	6/3-2024

### 3.1.2 Data from Documents

To ensure the robustness of the research, this study supplemented interview data with documents from Haglöfs, such as annual reports and company strategy documents. These documents were used to obtain complementary information and offer a more comprehensive understanding of the topics discussed in the interviews. The selection of documents gathered was strategically aligned with the research questions, focusing on providing extensive information. This selection process also took into consideration the data availability at Haglöfs, ensuring that the research used the most relevant data.

Moreover, the handling and utilisation of these documents in the thesis were affected by confidentiality considerations. This aspect is critical, as it determines the extent to which the

documents can be used and referenced in the thesis. The study carefully navigated these considerations while striving to extract valuable insights from the documents to enrich the research findings.

## 3.2 Data Analysis

The interview data collected in this study have been analysed using the methodology of grounded theory, specifically the Gioia method. Grounded theory is a well-established method for analysing qualitative data and has gained large popularity (Bell et al., 2019). The choice of this analysis method has been influenced by its nature, as it allows prospective research, studying phenomena that is relatively new to literature.

The process of grounded theory includes several iterative steps, the most critical being theoretical sampling, data collection, coding of data, theoretical saturation and exploring relations between the concepts discovered (Bell et al., 2019). The Gioia method is a systematic approach to inductive research, aimed at developing new concepts and articulating grounded theories with qualitative rigour (Gioia et al., 2012). Its goal is to construct a robust inductive model grounded in data, reflecting informants' experiences in theoretical terms, thereby encouraging the creation of new theoretical concepts. The process of the Gioia method generates grounded theory by revealing dynamic relationships among emerging concepts (Gehman et al., 2017). During the process of the Gioia method, the data collected had a central role and was contrasted with theory, creating an opportunity to find connections of interest between the data collected and theory.

In the initial phase of the method, known as 1st order analysis, the emphasis is on closely reflecting informant terms without merging categories, resulting in a generous generation of categories (Gioia et al., 2012). Subsequently, efforts are made to identify similarities and differences among these initial categories, gradually reducing them to a more manageable number. This step leads to the assignment of labels or descriptors, while still maintaining informant terminology, followed by a comprehensive examination of the assigned labels. Here a multi-level perspective is used, considering informant terms and codes alongside theoretical concepts to address overarching theoretical questions (Gehman et al., 2017; Gioia et al., 2012). This marks the transition to 2nd order analysis, where emerging themes are evaluated for their conceptual value in explaining observed phenomena, with a focus on identifying concepts lacking theoretical reference or demonstrating relevance to new domains in theory. In this thesis, the observed phenomena of an emerging ecosystem was studied and seven second-order themes were identified, illustrated in Figure 4.2.

Following this, the aim is to refine the identified themes into aggregate dimensions, which constitutes an important part of the data structure. The data structure not only organises data visually but also illustrates the progression from raw data to 1st order codes to 2nd order theoretical themes and aggregated dimensions. This provides a demonstration of research rigour.

To evaluate the quality of a qualitative analysis Goffin et al. (2019) introduce three evaluation criteria; inter-code agreement, case presentation and case interpretation. The first criterion focuses on the presence of inter-coded checks, where multiple researchers code the collected data independently. This study used 85% of inter-coded agreement, which is within an acceptable level according to Miles et al. (2014). Two researchers have independently coded data during this study and this acted as a form of triangulation. The second criterion underscores the importance of data being presented clearly. According to Pratt (2009), there is a need for a balance between data and interpretation when presenting the findings. To achieve this, text and data visualisation have been intertwined in the findings. The last criterion is to make sure that the case study results are interpreted appropriately. This entails that theorising should be an iterative process, following a logical path from data findings. To ensure this theorising will result in concrete output illustrations can be used, such as the creation of a data structure derived from the case by using the Gioia method.

### 3.3 Empirical Context

This study has been conducted at Haglöfs, an outdoor clothing and equipment retailer. It was founded in 1914 by Wiktor Haglöf, a visionary carpenter who aimed to create a backpack durable enough for all kinds of travels across Sweden, regardless of weather conditions (Haglöfs, n.d.). In 1935, the opening of the Tylla factory marked a significant expansion in Haglöfs' production capabilities, leading to the development of new products including framed backpacks, gaiters, masks, and eventually, a comprehensive range of outdoor clothing and footwear. The 1960s saw a strategic shift in focus towards outdoor gear, signalling the brand's evolving identity in the outdoor equipment market (Haglöfs, n.d.).

The company has undergone several ownership changes over the years. In 1975, Wiktor Haglöf's sons, Rolf and Hans Haglöf, sold the company to the Bonnier group. This change was followed by an expansion in product offerings, with the addition of footwear and expedition wear in 1995. The next significant transition occurred in 2010 when Haglöfs was acquired by Japanese ASICS, a multinational corporation known for athletic goods (Haglöfs, n.d.). The most recent change in ownership came in December 2023, when Haglöfs was sold to LionRock Capital, an investment company based in Hong Kong (Dagens Industri, 2023). Haglöfs' historical highlights are presented in Figure 3.1.

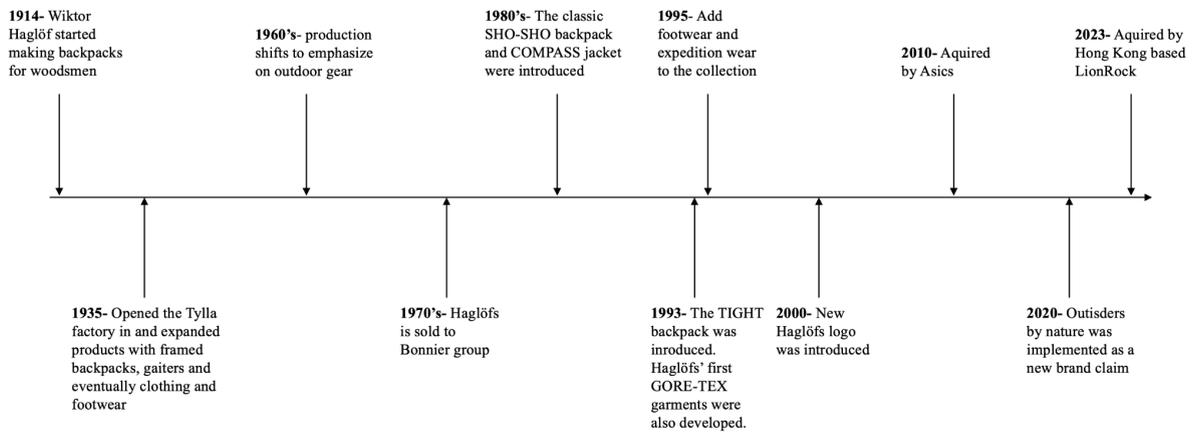
Today, Haglöfs' operations are widespread and international. The company does not own any manufacturing facilities but instead collaborates with a network of over 90 trusted material suppliers and manufacturers across 17 countries (Haglöfs, 2022). This extensive network allows Haglöfs to design, develop, and market a diverse range of outdoor clothing and footwear, catering to the various needs of the outdoor enthusiast.

Sustainability is a cornerstone of Haglöfs' business philosophy. The company has made significant efforts in integrating sustainability into its overall business strategy. Key focus areas include reducing the carbon footprint, producing long-lasting products, and having a positive impact on communities (Haglöfs, 2022). In 2022, Haglöfs took a step by further

integrating sustainability into its business strategy, a move that underscores the importance of environmental stewardship in the company's organizational structure.

**Figure 3.1**

*Timeline of Haglöfs' History*



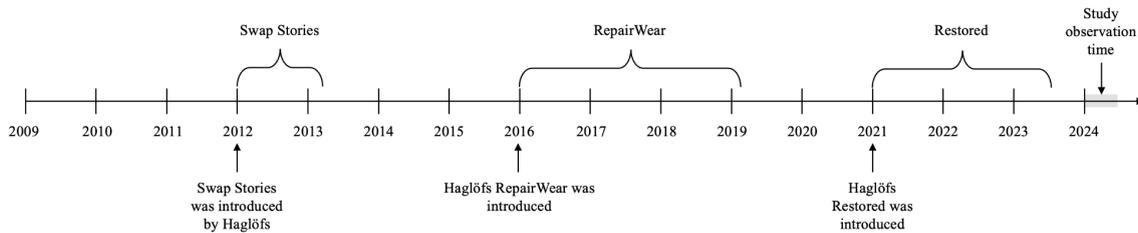
*Note: Illustrated by the authors*

### 3.3.1 The History of Haglöfs' Repair Initiatives

According to respondent number 10, a senior in Sustainability and Business Development (R10), Haglöfs' journey into repair and circularity initiatives represents a large effort in the outdoor apparel industry to embrace sustainability and reduce environmental impact. An overview of the circular initiatives is illustrated in Figure 3.2. Haglöfs started small-scale with the Swap Stories project, and began exploring the principles of the circular economy by giving new life to used products through storytelling and resale. This initiative laid the groundwork for following projects, including Repair Ware and Haglöfs Restored, each building on the lessons learned and successes of the previous efforts. Repair Ware took a more hands-on approach by repairing slightly damaged products and offering them at reduced prices, directly engaging customers in the process of sustainability (R10). The ambition scaled up with Haglöfs Restored, which aimed to systematically refurbish and resell used or defective items on a larger scale, leveraging digital platforms to reach a wider audience. Together, these initiatives show Haglöfs' commitment to sustainability and initiatives to extend the lifespan of its products, reducing waste, and fostering a culture of reuse and recycling within the outdoor apparel sector (R10).

**Figure 3.2**

*The Timeline of Haglöfs' Circular Initiatives*



*Note: Illustrated by the authors*

Haglöfs' first repair initiative, Swap Stories, emerged as an innovative sustainability project aimed at embracing circular economy principles within the company (R10). First introduced by a group of designers and product developers as part of their graduation project from the Sustainability Fundamentals Academy, Swap Stories was Haglöfs' first step into circular projects. The initiative involved collecting used products from the company's ambassadors, sharing their unique stories, and selling these items in Haglöfs' brand store in Stockholm. This initiative did not include external parties, and therefore did not offer experience in ecosystem orchestration. Despite its small scale, involving around 30 products over a span of approximately a year and a half, Swap Stories marked a significant strategic step towards sustainability for Haglöfs (R10). The project highlighted the company's commitment to reducing environmental impact and fostering a culture of reuse and recycling, even though facing challenges in scalability and continuity due to its manual and labour-intensive nature.

Following the Swap Stories initiative, Haglöfs introduced another innovative project called RepairWear, which further emphasised the brand's dedication to sustainability and circularity (R10). Launched as a part of the broader Second Chance program, Haglöfs RepairWear focused on collecting slightly damaged or defective products, such as those missing a seam or a button, and repairing them to full functionality. These repaired items were then sold at a reduced price in Haglöfs' stores in Stockholm and Gothenburg, with special in-store displays that attracted significant customer interest (R10). This initiative not only reduced waste but also demonstrated Haglöfs' commitment to extending the life cycle of its products. Despite its manual nature and the significant effort required, RepairWear proved to be a successful venture that resonated well with both staff and customers, highlighting the potential for circular practices in the outdoor apparel industry. The initiative also offered Haglöfs experience in ecosystem orchestration as there were external partners involved in the initiative.

Building on Swap Stories and RepairWear, the company launched Haglöfs Restored. This initiative marked a major evolution in the company's approach to sustainability, aiming to scale up their circular efforts by addressing the entire lifecycle of their products. External partnerships were created in order to achieve the aim of the initiative. Haglöfs Restored focused on refurbishing and reselling returned or defective items, thereby minimising waste and extending the useful life of products (R10). This initiative was grounded in extensive

research, including customer surveys that demonstrated a strong interest in purchasing second-hand goods. Haglöfs Restored was strategically integrated into the company's annual strategy as a "must-win" for sustainability, receiving significant resources and support. By prioritising digital platforms, Haglöfs aimed to reach a broader audience and make second-hand items more accessible across various markets (R10). Despite challenges, including the need for external partnerships and the complexities of establishing a circular model, Haglöfs Restored represented an essential effort in the company's commitment to environmental responsibility and sustainability.

### 3.4 Reflection of Ethics, Validity and Reliability

When conducting this master thesis for Haglöfs, ethical considerations, particularly regarding integrity and personal data protection have been rigorously observed throughout the research process. Before the interviews that have been conducted, the participants have received information about the interview's objectives and content. The transparency ensured that interviewees could make an informed decision regarding their participation in the interview (Bell et al., 2019).

Consent for recording interviews has been explicitly asked for, and participants had the ability to be anonymous in the final report. This approach respects the participants' privacy and aligns with Haglöfs' values of integrity and respect for individuals. The research methodology used during the study includes feedback sessions with participants that enable them to ensure that the presentation of their views and experiences in the study is correct. This is in line with (Goffin et al., 2019), who argue that having reviews of the generated data in case studies are important.

Compliance with the General Data Protection Regulation (GDPR) has been the highest priority. All personal data gathered during the research were handled and stored carefully, in line with legal requirements for data protection. This is also of importance as our master thesis does not only reflect on us personally but also on Haglöfs as well as Chalmers University of Technology.

Comparing findings against existing literature has been an essential part of the research. This was to ensure the credibility of the research outcome. By comparing the findings with those in existing literature, it has been possible to deepen the understanding of the concepts studied and enable the reliability of the analysis. The comparison with other studies also helped in determining if the conditions under which this master thesis research was conducted are similar to those in other studies and provide an understanding of the context studied.

The research has also ensured that it is possible to generalise the findings beyond the close environment of Haglöfs by incorporating theoretical concepts in the data analysis. This step was important to understand the applicability of our conclusions to other settings and organisations. By understanding the generalizability of the context studied, we aimed to extend the relevance of our findings and make them useful in similar contexts to the circular

clothing ecosystems. This approach not only contributed to the academic value of the thesis but also increased the practical relevance of the research for the industry, including Haglöfs and other actors.

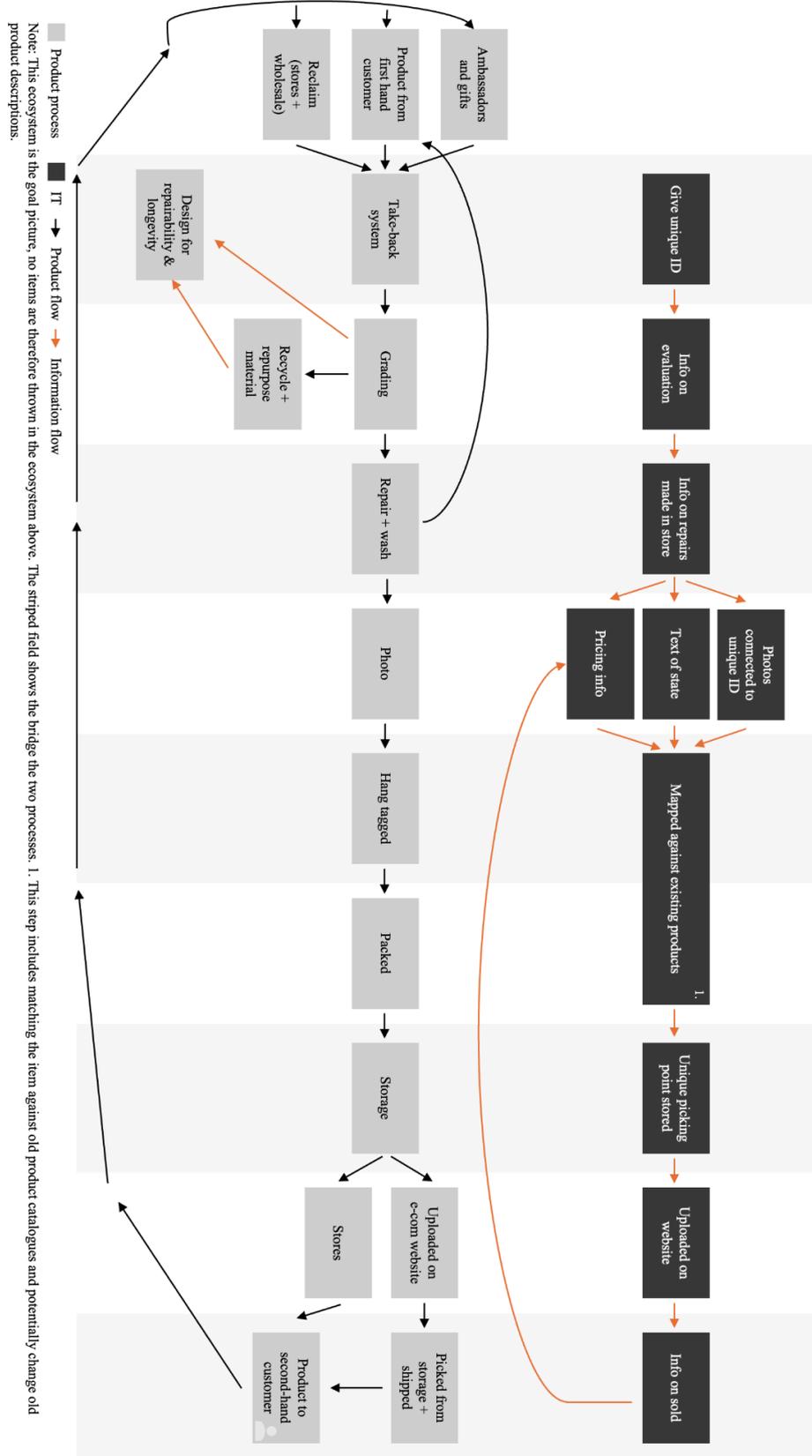
## 4. Findings

The findings chapter describes how the ecosystem processes within the emerging circular ecosystem of the repair and resale activities in the outdoor retail industry are described by the respondents. The concept of ecosystem emergence is described in the context of a central actor, which in this case study has been Haglöfs. The central actor moves through three phases in ecosystem emergence; the acceleration, transition, and orchestration phase. These phases illustrate the transformation of the central actor from an accelerator to an orchestrator.

### 4.1 Ecosystem Processes

To understand the repair and resale ecosystem in the outdoor retail industry an outline of the ecosystem has been illustrated based on the interviews conducted at Haglöfs during the study and can be seen in Figure 4.1. The illustration shows the ideal repair and resale ecosystem and its processes from the perspective of Haglöfs as the central actor. During the interviews, two main paths were identified. Firstly, the processes that the products go through and secondly the IT system that keeps track of the information flow in between the stages.

**Figure 4.1**  
*Ecosystem Processes Within the Circular Ecosystem*



In the product process, the products are described to be collected through three main channels; ambassadors and gifts, products from first hand customers and reclaim. The clothes are collected through a take-back system and further graded as can be seen in Figure 4.1. During the grading stage, the damage to the product is deeper looked into and graded. It is then decided if the damage is repairable or not. If the damage is not repairable, then it is said that ideally the item is recycled, and the material is repurposed. During this step, information flows from the recycling and grading processes to the design team. According to R7, the information will help the design team's understanding of what could be improved to design for repairability and longevity. However, if the result of the grading categorises the product as repairable, it is repaired and washed. If the product is from a first-hand customer who wants the piece back then the product is returned. According to R4, "Most private customers want the product back again in contrast to wholesalers that do not want the product after reparation". If not given back to the customer, the product should optimally be photographed, labelled, packed, and stored before being shipped to one of Haglöfs' physical stores or uploaded on the e-commerce website, which is illustrated in Figure 4.1. If the product is uploaded on the e-commerce website, there is an additional step before the product is at the second-hand customer which includes picking from storage and shipping it to the customer.

During the interviews, it was described that there is an IT system that collects information about the product and is parallel to the product processes, as seen in Figure 4.1. The IT ecosystem starts the moment that the product is introduced into the take-back system. Then, according to R1 "The product is given a unique ID in order to keep track of the specific item". The evaluation information is thereafter linked to the ID. When the product has been repaired, the information from the reparation also needs to be linked and added to the given product. As the product is later photographed, the photo, text of the product's status and pricing information are added to the product ID. The product is thereafter mapped against an existing database of old products. According to R9, this step is both digital and manual as not all the products are in a digital catalogue and some manual paperwork might be needed. The next critical step for the IT system is to connect the ID to a unique picking point as the products are unique and the exact product bought needs to be found. The product is thereafter uploaded on the website and when the product is sold the information should ideally be fed back to the system to better price the products in earlier steps.

Two parallel paths can be seen to have emerged; the physical journey of products and the IT process that tracks this journey. The bridge between these paths is the assignment of unique IDs to each product, ensuring individual tracking and management.

## 4.2 Phases of Ecosystem Emergence

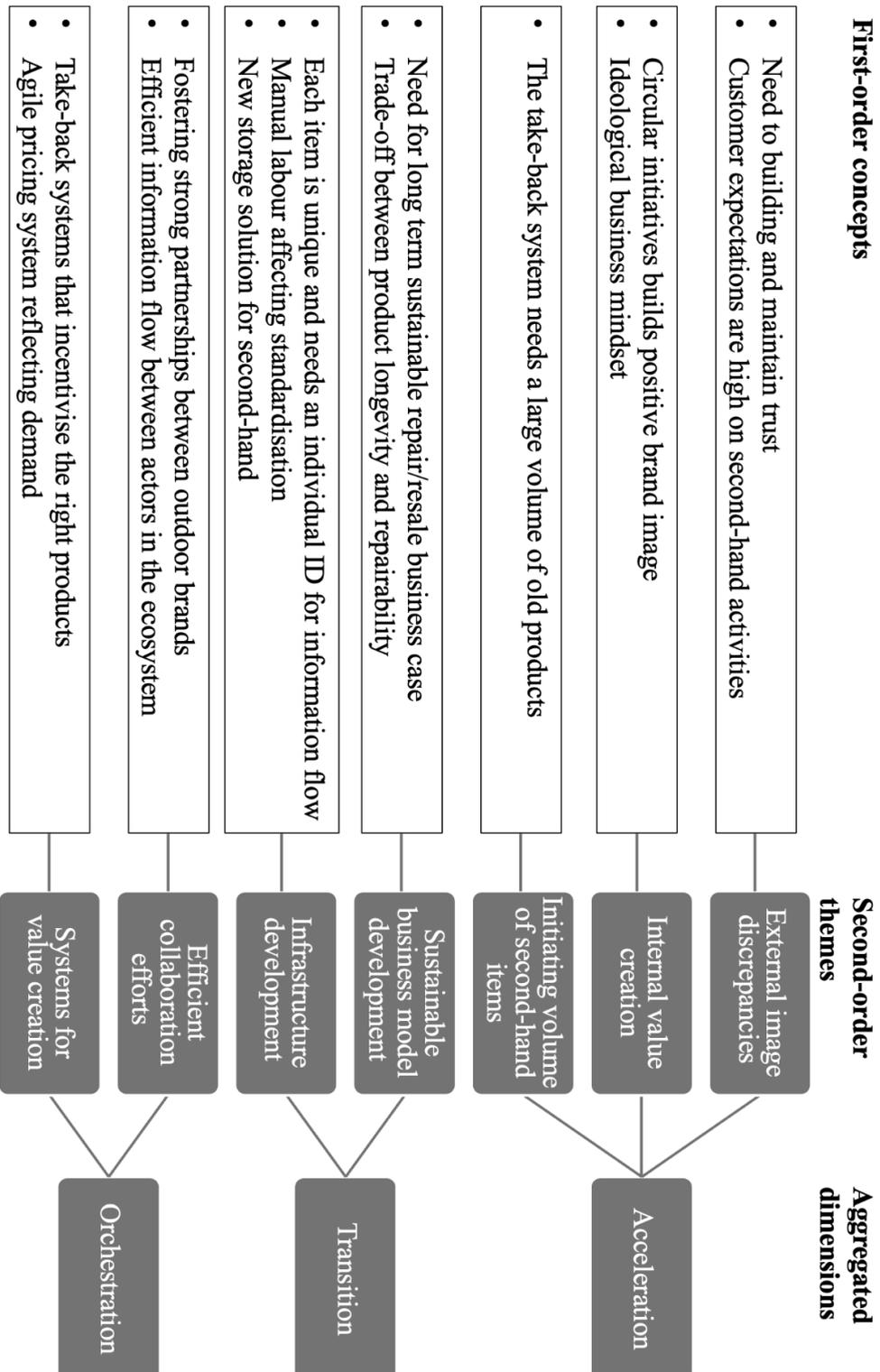
An actor-centric perspective has emerged in the interviews, and by emphasising the role of the central actor, a nuanced picture of the circular ecosystem of repair and resale activities in the outdoor retail industry has been found. This central actor has been seen to be crucial in navigating the ecosystem's development across various phases. To understand the important elements of each phase, the study uses the systematic Gioia method to analyse the data

gathered from the interviews. The central actor has been shown to influence the ecosystem's functionality and evolution and therefore the ecosystem structure and the interdependencies present were focused on.

The analysis began with open coding to identify initial data concepts, which were then categorised. This was followed by conceptual coding to explore relationships among the categories, which resulted in themes that were later synthesised into aggregated dimensions. This is illustrated in Figure 4.2, providing a structured overview of the findings made in our empirical study.

**Figure 4.2.**

*Data Structure of the Dimensions in Ecosystem Emergence*



The study found that an actor-centric perspective on ecosystem emergence can be divided into three phases; acceleration, transition and orchestration. The findings shown in Figure 4.2 highlight Haglöfs’ evolving role and shed light on broader implications for ecosystem actors. The aggregated dimensions and their underlying second-order themes will be discussed further in the subsequent sections of this chapter, offering a deeper understanding of the processes driving ecosystem emergence.

#### 4.2.1 Acceleration

In the acceleration phase, it can be seen that the central actor plays a critical role in creating relations and coordination across the network. To understand the role of the accelerator, i.e. the central actor, three overarching themes have been found describing the factors present in the acceleration phase; external image discrepancies, internal value creation and initiating volume of second-hand items. The first second-order theme ‘external image discrepancies’ highlights the challenges Haglöfs face when building and maintaining trust with external partners and managing customer expectations around second-hand products. The second theme ‘internal value creation’ is said to be important for Haglöfs as it focuses on enhancing its brand image through sustainable initiatives and building a common business culture that is centred around sustainability. The third and last theme ‘initiating volume of second-hand items’ discusses the importance of having a large initial volume of products as it is the respondents underline the importance of attracting and retaining customer interest.

**Table 4.2**

*Key Quotes on Acceleration, Second-order Themes and First-order Concepts*

<b>Acceleration</b>		
<b>Second-order theme</b>	<b>First-order concepts</b>	<b>Representative quotations</b>
External image discrepancies	Need to build and maintain trust	“We could decide to say we do it ourselves or give it to a third party and they sell it as a marketplace volume driver. But then we don’t really control the storyline” (R7) “How can one stand for something that one has never touched? Then one must have incredible trust and closeness.” (R1)
	Customer expectations are high on second-hand activities	“With second-hand, the customer also has an expectation of the product. And there must not be too

		big of a gap there.” (R1)
Internal value creation	Circular initiatives build a positive brand image	<p>“We are supporting a second-hand setup. So I think if we do a setup, we would also get credibility for that” (R2)</p> <p>“A lot of people look to Haglöfs because of our sustainability thinking.” (R8)</p>
	Ideological business mindset	“But I believe it adds value for those who work at Haglöfs.” (R4)
Initiating volume of second-hand items	The take-back system needs a large volume of old products	<p>“A lot of the time, people forget that to make this whole thing work you need to have a lot of old products.” (R7)</p> <p>“It will all come down to volume. [If] you don’t have volume, you don’t have the pipeline of making money out of it.” (R7)</p> <p>“Where you need to ensure that the customer interested in buying second-hand gets a sufficiently large selection.” (R11)</p> <p>“Because it’s not fun if there’s nothing to choose from [early in the initiative]. So, build up a base.” (R2)</p>

#### 4.2.1.1 External Image Discrepancies

In the acceleration phase, it is found that Haglöfs faces significant challenges with external image discrepancies that potentially can hinder their growth. These discrepancies have been described to primarily be divided into two major difficulties. The first challenge is the difficulty in establishing trust with external partners. The actions of these partners can negatively impact Haglöfs’ brand image, which is argued by respondents to be crucial for a customer-facing outdoor brand. This lack of trust comes mostly from Haglöfs’ inability to control these collaboration partners, a concern highlighted by respondents R7 and R4 during interviews. Respondents R4 and R7 also indicated that external partnerships could potentially damage the brand if these partners engage in activities that do not align with Haglöfs’ values. Respondent R1 agrees with this, arguing that “How can one stand for something that one has

never touched? Then one must have incredible trust and closeness.” R1 also emphasised the importance of the brand standing for its core values and noted that building trust with external parties requires time and evidence of their reliability.

Additionally, it has been said that Haglöfs is confronted with the challenge of managing customer expectations for its second-hand products. Second-hand customers often expect these used items to feature the same quality and functionality as new products. However, as R1 pointed out, there is a significant gap between these expectations and the actual performance level of second-hand products. This discrepancy is said to possibly lead to customer dissatisfaction if not managed properly. This approach is described to help build customer trust and confidence, ensuring that they have realistic expectations about the product’s quality.

There are various challenges that Haglöfs is said to face in the acceleration phase, particularly regarding external image discrepancies that arise from the difficulty of trusting external partners and managing customer expectations for second-hand products. These challenges are described to underscore the importance of building trust and transparency, not only with external partners to protect and enhance Haglöfs’ brand reputation but also with customers to align expectations with the reality of second-hand product conditions.

#### 4.2.1.2 Internal Value Creation

From the interviews, it has been made clear that in the phase of acceleration, it is important to focus on internal value creation, which is a key component that must be carefully managed and aligned. For Haglöfs, a brand recognised for its commitment to sustainability, internal value creation is described as two main categories: enhancing the brand image through circular initiatives and fostering an ideological mindset centred on sustainability.

The first category, building a brand image through circular initiatives, is said to be crucial for Haglöfs. The brand is already associated with sustainability, a perception resulting from several circular initiatives over the years. Adding to this, respondents from the company have emphasised the broader benefits of such initiatives. Respondent R4 noted, “[...] I think it would be good for our brand, that it’s us who handle it ourselves”. Respondent R1 supported this by stating that the brand value was more important than monetary gains. The enthusiasm for participating in the recycling and reintroduction of garments into a circular system was described as “sky-high” by R4, further underlining the commitment and pride the brand takes in these initiatives.

It is claimed that the second challenge is fostering an ideological, circular business mindset among Haglöfs’ employees. The company must have a clear and shared value proposition that aligns the interests of its workforce towards a common, sustainable goal. Respondent R4 highlighted the added value of such a goal provides to the employees, reinforcing their sense of purpose and belonging within the company. Meanwhile, R8 emphasised the goodwill behind these efforts, emphasising that “A lot of people look to Haglöfs because of our

sustainability thinking”. R8 also argued for goodwill initiatives that are driven from the heart and with a genuine intent to do right, not just because it’s a trend.

#### 4.2.1.3 Initiating Volume of Second-hand Items

A successful initiation of a repair and resale ecosystem in the outdoor industry, particularly during the acceleration phase, is said to need the availability of a large volume of products. This initial stock is described to be crucial because it provides customers with a broad range of options to choose from, thereby attracting and retaining their interest in the platform. It is said that for companies like Haglöfs, navigating this stage effectively is essential for progressing to the transition phase of the emerging ecosystem.

Respondent R7 emphasises the common mistake of not prioritising the initial volume of products, explaining that “A lot of the time, people forget that to make this whole thing work you need to have a lot of old products”. This underestimation of initial volume can jeopardise the entire initiative as the presence of a diverse and large product selection is fundamental to drawing customers into the second-hand market. Respondent R11 supports this view by pointing out that having “a sufficiently large selection” is vital for maintaining customer interest. Similarly, R2 highlights the importance of building a robust product base, and that a small selection is unappealing and insufficient to sustain second-hand customer engagement.

The critical role of product volume in the initial stages of the ecosystem is further pointed out by R7, who described that without a substantial volume, there is no robust pipeline to generate revenue. The implication argued by R7 is clear: “Without enough products, the business model struggles to take off financially”.

#### 4.2.2 Transition

The need for the development of a sustainable business model and new infrastructure in the transition phase has been made evident in the interviews. The subsection on sustainable business model development discusses the necessity of generating revenue to sustain circular initiatives long-term and explores the trade-offs between product longevity and repairability. As for infrastructure development, various challenges to achieving efficiency in the emerging ecosystem have been found, such as IT systems for unique IDs, labour-intensive activities and new storage solutions. These topics are discussed further in the subsequent sections.

**Table 4.3**

*Key Quotes on Transition, Second-order Themes and First-order Concepts*

<b>Transition</b>		
<b>Second-order theme</b>	<b>First-order concepts</b>	<b>Representative quotations</b>

Sustainable business model development	Need for long-term sustainable repair/resale business case	“[For a] circular business to continue to be driven by companies, one must make money from it, otherwise, it becomes unsustainable in the long run.” (R10)
	Trade-off between product longevity and repairability	“How can we make sure that the product doesn’t fail for longer, if we do this for longer, but its also about saving the planet. Versus repairability, about when it breaks, how easy it is to give it a second life.” (R7)
Infrastructure development	Each item is unique and needs an individual ID for information flow	“So then the next challenge that many companies have in my opinion is unique IDs. When you sell a product second-hand you [...] have got to make sure to keep track of that unique item.” (R7) “All [IT and business] systems that one has today are built based on a completely different business model.” (R1)
	Manual labour affecting standardisation	“[Handling the take-back system] is very manual work, I think spontaneously. [...] Regardless of how many products come in.” (R5)
	New storage solution for second-hand	“In storage, it’s usually built for it to be pallets. Not that you stack products just anywhere.” (R1) “We need a solution for picking spots.” (R3)

#### 4.2.2.1 Sustainable Business Model Development

The development of a business case is of high importance in the acceleration phase according to the respondents, as it is a foundation in the decision-making state. In the transition phase, the business case is further developed and adopted to the ecosystem needs.

The business case for repair and resale activities needs to be sustainable long-term, where both environmental and economic sustainability are considered. This is underscored by various insights obtained from the interviews. Multiple respondents emphasised the necessity to generate revenue to sustain initiatives over the long haul (R10, R7). Respondent R10 argued that “[For a] circular business to continue to be driven by companies, one must make money from it, otherwise, it becomes unsustainable in the long run”. Furthermore, respondent R6 mentioned that considerable financial investment is required for larger circular initiatives, highlighting the need to cover the costs involved in these projects. However, a sustainable business model encounters several challenges, including the risk of internal competition and the potential cannibalisation of existing product lines. With second-hand products being sold in the same channels as new ones, there is a risk that they compete with the new products according to R5. The risk of internal competition is also mentioned in the context of shipments from the storage locations (R4). Another challenge is to ensure cost-effectiveness and maintain margins (R9, R11), as they are important aspects of a sustainable business model. This can be particularly challenging in resource allocation, argues R10, specifically when it comes to capital, as there is a need to hire more personnel to drive the circular initiatives.

To achieve a sustainable business model, it is said that navigating the trade-offs between designing for repairability and longevity is essential. The trade-offs in design decisions between prioritising repairability and longevity are varied, demonstrated by insights from the interviews made. The central trade-off that emerged from the interviews is the balance of product durability with ease of repair to prolong lifespan (R7). However, practical challenges arise, as exemplified by R5 explaining scenarios such as the large cost of repairing a simple zipper on a waterproof jacket, which renders repairability economically unfeasible. Additionally, R7 argues that simplifying repair processes may compromise the long-term durability of products under everyday usage conditions. Despite these challenges, there is a growing recognition of the importance of designing products with repairability and recyclability in mind. Respondent R5 exemplifies this with Haglöfs’ efforts to create modular products with replaceable components. To enhance durability and minimise the need for repairs to the products, R7 states that there is a need to start leveraging repair data to inform product design improvements. Moreover, the longevity of products contributes to sustainability by extending the products’ useful lifespan (R8).

Insights from interviews underscore the challenges and trade-offs in ensuring the sustainability of repair and resale activities, emphasising the need for a holistic approach that balances profitability and sustainability.

#### 4.2.2.2 Infrastructure Development

It is evident from the interviews that the development of infrastructure for managing an emerging circular ecosystem is vital for the successful transition to the orchestration phase. The infrastructure present in the acceleration phase has yet to be customised to the circular initiatives involving second-hand items, which creates problems with efficiency according to

the interviews. However, infrastructure development in the emerging circular ecosystem will entail various challenges, as highlighted in the interviews.

An underlying challenge lies in establishing unique identification systems to accurately track items throughout their lifecycle, highlighted by respondent R7. Giving each item a unique ID and ensuring that all information on potential damages, model, colour and size is connected to that item will require significant effort from Haglöfs according to R4. However, respondent R6 argues that it will be difficult for Haglöfs to outsource this process as information regarding the item will be needed as input for the system. The integration of such IT systems can also become a challenge. One thing that needs to be considered is that the existing infrastructure and IT systems are not built for second-hand items. Respondent R1 explained that “All [IT and business] systems that one has today are built based on a completely different business model”. Therefore, according to the interviews, there is a need to develop IT systems for handling unique IDs to ensure an efficient flow of information regarding the items in the ecosystem.

Additionally, it is argued that the manual and labour-intensive nature of processes in the take-back system, such as the repair activities, presents challenges in achieving standardisation and efficiency. The amount of manual labour needed for the repair process has been described by R5 as almost linear to the amount of products that are in the system. Respondent R5 argues that “[Handling the take-back system] is very manual work, I think spontaneously. [...] Regardless of how many products come in”. The challenge persists when using external service providers, as it would require Haglöfs to train them to assess products consistently and grade them effectively (R10). There are also efficiency issues in the logistics of an emerging circular ecosystem. Respondent R11 highlights that handling each item separately in its own logistics chain will contribute to higher costs and emissions, thus standardisation is needed to optimise logistics. Therefore, minimising manual steps and reducing shipping between locations will be crucial for streamlining operations (R3).

Another aspect of infrastructure mentioned during the interviews is the storage solutions for circular initiatives. Respondent R11 argues that the layout of a storage facility must balance the unique characteristics of second-hand items with the essential goal of optimising space utilisation. Traditional storage infrastructure is limited according to R1, as “In storage, it’s usually built for it to be pallets. Not that you stack products just anywhere”. This highlights the necessity for a dedicated storage solution tailored to second-hand products. The creation of designated picking spots and specialised storage areas equipped with appropriate labelling and inventory management systems will be needed to reach efficiency (R3, R4). Developing innovative storage solutions tailored to the unique requirements of second-hand items is therefore essential for optimising storage space.

The insights from the interviews underscore the necessity for innovative approaches to infrastructure development in support of circular ecosystems, highlighting the combination of technological, logistical and operational challenges.

### 4.2.3 Orchestration

From the interviews, two main themes have been found to describe the orchestration phase; efficient collaboration efforts and systems for value creation. These have helped to gain deeper insight into what Haglöfs' role as an orchestrator would include. In the "Efficient Collaboration Efforts" subsection, the focus is on fostering strong partnerships between outdoor brands, facilitating information exchange, and optimising joint processes for economic and operational efficiencies. Meanwhile, the "Systems for Value Creation" subsection describes the implementation of strategic systems such as a take-back system incentivising the return of the right products and an agile pricing model tailored to the second-hand market's demand based on the interviews. The following subsection will discuss these themes more deeply.

**Table 4.4**

*Key Quotes on Orchestration, Second-order Themes and First-order Concepts*

<b>Orchestration</b>		
<b>Second-order theme</b>	<b>First-order concepts</b>	<b>Representative quotations</b>
Efficient collaboration efforts	Fostering strong partnerships between outdoor brands	<p>"Any outdoor brand, I believe should for the sake of this focus on putting their competitiveness aside and partner up around some of these repair facilities, unique ID set-up, even this return incentive. Set up the tools to allow for these things to scale." (R7)</p> <p>"I believe the only way to reduce costs is to collaborate." (R11)</p>
	Efficient information flow between actors in the ecosystem	<p>"There needs to be an exchange of information." (R5)</p> <p>"[Collaboration partners] constantly need product information from Haglöfs."(R4)</p>

Systems for value creation	Take-back systems that incentivise the right products	<p>“What is missing is some entity that can really drive what we should pay for really good products that actually people want to buy. But how do we get those back?” (R7)</p> <p>“It’s a discussion about demand planning. So when we produce products we all have the demand planning exercise, okay. To think is there demand for this or not? You should in theory do the same with second-hand.” (R7)</p>
	Agile pricing system reflecting demand	<p>“The platform [for bidding] doesn’t have to be ours but we need to be involved in how we price our products. We want to get most of our products back, but the platform can be a third party.” (R7)</p> <p>“Everything should have its own unique price, a cost price, selling price, everything.” (R1)</p>

#### 4.2.3.1 Efficient Collaboration Efforts

During the orchestration phase of ecosystem emergence, efficient collaboration among ecosystem actors, particularly between outdoor brands, is said to be crucial for the well-functioning of the circular ecosystem. This collaboration has been found to rely on efficient information flow among all actors involved.

The interviews highlighted the necessity for brands to collaborate to achieve economies of scale and systematise operations. According to R11, managing individual value chains for second-hand initiatives is inefficient and costly. Therefore, respondent R7 argues that brands should set their competitiveness aside and join forces to establish processes necessary for facilitating scalability in the circular ecosystem. By collaborating in the take-back system, brands can share resources and expertise to optimise processes and enhance the efficiency of circular initiatives. While competition in the outdoor retail industry drives product innovation, collaboration is seen as key to reducing costs (R7, R11). These collaborative efforts are said to aim to increase the volume of items circulating in the system, enabling economies of scale that benefit all participating brands. Having a joint take-back system for

all brands in the outdoor retail industry is argued by R10 to be the long-term goal, but will require major efforts by the brands involved.

Efficient information flow between actors in the ecosystem is found to be a critical factor for a successful ecosystem to emerge in the orchestration phase. Actors in the ecosystem will “constantly need product information from Haglöfs” (R4). The collaboration partners rely on access to product information for various purposes, ranging from repair instructions to accounting and legal compliance (R4, R7). The flow of information in the circular ecosystem also includes the exchange of data regarding repairs and grading (R5). Providing collaboration partners in the ecosystem with enough product information to enable independent handling of certain processes in the ecosystem is necessary to reach efficiency, according to R10. This exchange of data between partners needs to be facilitated by information-sharing systems. Transparent communications are needed due to the nature of Haglöfs products. Respondent R4 mentions that the complexity of technical products underscores the need for detailed instructions on handling the product to the collaboration partners.

The implementation of these collaborative strategies and information-sharing is described to drive the development of a circular ecosystem in the outdoor retail industry. The interviews underscore the benefits of brand collaboration in the take-back system, including process optimisation, cost reduction, and increased volume of items in the system. Collaborating is described to allow for economies of scale and reduced operational costs in individual second-hand value chains. Furthermore, efficient information flow facilitates communication between actors in the ecosystem. Overall, the strategic shift towards collaborative approaches highlighted in the interviews will help achieve a successful circular ecosystem in the outdoor retail industry.

#### 4.2.3.2 Systems for Value Creation

In the orchestration phase of establishing a repair and resale ecosystem within the outdoor retail industry, respondents argue that systems for value creation are essential for success. It has been found that Haglöfs needs to focus on implementing two critical systems to strengthen its business model: a take-back system that incentivises the right products and an agile pricing system that reflects demand. Both these systems should be made to meet the requirements of the second-hand market.

The take-back system should be designed to incentivise customers to return products that are in high demand on the second-hand market (R7). The question R7 emphasised during the interview was how Haglöfs could get those good products back. The respondent discussed the possibility of a demand planning exercise in the second-hand market, similar to the one made when producing new products. Respondent R7 also highlighted the importance of strategically acquiring “really good products that actually people want to buy”, rather than accumulating items that lack demand. Additionally, R5 emphasised the necessity of making

the return process straightforward and a natural part of the product's lifecycle, encouraging both first- and second-hand customers to participate in the ecosystem.

Parallel to the take-back system, an agile pricing system that reflects real-time demand to ensure that products are bought back and resold at prices aligned with their market value should be implemented (R7). Respondent R1 underscores the same aspect and said that every product needs to “have its own unique price, a cost price, selling price, everything”. This system could be developed by a third party but requires close collaboration with Haglöfs in order to leverage their expertise in product valuation (R7). R7 suggests a model where the pricing strategy is directly tied to the potential resale value, ensuring profitability and efficiency in the resale process.

The integration of these systems forms the backbone of Haglöfs' value creation strategy in the later stage of ecosystem emergence. The take-back system ensures a supply of desirable products by aligning returns with customer demands, while the agile pricing system helps these products to be priced effectively based on the current market conditions. It is found that these systems aim to create a sustainable, profitable model for Haglöfs as they move into the orchestration phase of the emergence of the repair and resale ecosystem.

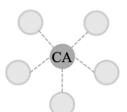
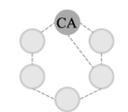
## 5. Discussion

This chapter discusses ecosystem emergence, drawing from the findings, pinpointing essential practices and barriers crucial for central actors navigating the landscape of ecosystem emergence. The literature taken together with the findings indicates the nature of these ecosystems, illustrating key differences between the two phases in Figure 5.1. This includes relationships, value creation focus, and the management of necessary resources. While the accelerator phase entails a central actor forming individual partnerships and focusing on individual value creation, the orchestrator phase sees the central actor integrated within the network, facilitating connections among actors and prioritising joint value creation. Additionally, resource management differs; in the accelerator phase, resources are managed by the central actor, whereas in the orchestrator phase, resources are decentralised within the ecosystem, with the orchestrator playing a crucial role but not directly holding the resources.

The subsection highlights multiple insights related to the practices required for successfully managing the barriers inherent in ecosystem emergence. The discussion focuses on the critical barriers that need to be overcome in each phase of the ecosystem's development. This is followed by a discussion of the specific practices that central actors should adopt during each phase to effectively address these challenges. These insights are important for understanding the practices needed to orchestrate the emerging circular ecosystem.

**Figure 5.1**

*Key Differences Between Accelerator and Orchestrator*

	Central Actor as Accelerator	Central Actor as Orchestrator
Relationship		
Value Creation	<div style="display: flex; justify-content: space-around;"> <span>Joint</span> <span>Individual</span> </div> <div style="display: flex; justify-content: space-around;">   </div>	<div style="display: flex; justify-content: space-around;"> <span>Joint</span> <span>Individual</span> </div> <div style="display: flex; justify-content: space-around;">   </div>
Resources	<div style="display: flex; justify-content: space-around;"> <span>Internal</span> <span>External</span> </div> <div style="display: flex; justify-content: space-around;">  </div>	<div style="display: flex; justify-content: space-around;"> <span>Internal</span> <span>External</span> </div> <div style="display: flex; justify-content: space-around;">  </div>

### 5.1 Insights on the Phases of Ecosystem Emergence

The study has revealed that ecosystem emergence unfolds in three distinct phases, each presenting multiple barriers that must be overcome to drive the ecosystem's evolution. In the complex journey of establishing a circular ecosystem, understanding and addressing these

barriers is crucial. The most important of these barriers are discussed in the subsections that follow. These barriers describe the landscape of the ecosystem and the potential hinders for joint value creation, offering a roadmap for central actors to navigate the complexities of ecosystem development.

### 5.1.1 Important Barriers to Overcome in the Acceleration Phase

During the study, it has become evident that Haglöfs is in the acceleration phase, due to multiple factors. In the literature, the accelerator, i.e. the central actor, is described as supporting smaller actors in the ecosystem by supplying the needed resources and offering mentorship (Goswami et al., 2018). This is coherent with Haglöfs as they drive the circular initiatives in their emerging ecosystem and nurture smaller actors by taking an active role in the development of the ecosystem, signifying their role as an accelerator. According to the literature, the central actor also takes the lead in initiating individual partnerships and prioritising individual value creation (Song et al., 2024). Haglöfs is currently doing this in its initiatives for circularity by being the spider in the web and almost having all communication in the ecosystem going through them. In contrast to the literature, the study has found that the resources in the ecosystem are not only held by the central actor but rather held internally by individual actors, as illustrated in Figure 5.1.

During the acceleration phase of ecosystem emergence, multiple barriers need to be overcome to facilitate successful ecosystem orchestration. Three themes –external image discrepancies, internal value creation, and initiating the volume of second-hand items– emerge as factors for Haglöfs to manage in the acceleration phase. Each of these reflects a specific aspect of the acceleration phase that Haglöfs needs to navigate to maintain growth and brand reputation in the competitive outdoor market.

Due to the collaborative nature of circular ecosystems, actor roles are constantly evolving (Aarikka-Stenroos et al., 2021). This is especially true for an emerging ecosystem, where new actors are joining the ecosystem. The lack of clear roles can create barriers in the form of a lack of trust between actors. In the case of Haglöfs, there is a lack of trust between collaboration partners regarding second-hand initiatives, where Haglöfs worry about the negative impact on their brand due to a lack of control in certain steps in the ecosystem. Creating trust is essential to enable effective collaboration (Trevisan et al., 2022). This is a critical barrier that Haglöfs must overcome to ensure successful collaborations during the acceleration phase. To do this Haglöfs need strategic collaboration and clear communication strategies that will enable Haglöfs to maintain its brand reputation while expanding its second-hand market initiatives. Another possible barrier concerning actor roles is customer expectations, where there currently is a misalignment in the ecosystem. The customer plays an active role in the circular ecosystem and therefore has to perceive value creation for themselves (Sandberg et al., 2018). In the emerging ecosystem for repair and resale activities in the outdoor industry, customers are expecting a higher standard of the products than is possible with the current repair methods. This is a barrier that needs to be overcome, as one of the key orchestration capabilities identified in the literature is managing circular customer

offerings (Sandberg, 2023; Shi & Shen, 2021). Therefore, it is imperative for Haglöfs to maintain transparency with customers regarding the condition of second-hand products. By addressing these two major challenges, Haglöfs can navigate the complexities of the acceleration phase more effectively, protecting its brand reputation and customer loyalty.

In the acceleration phase, it is found from the interviews that the focus is on internal value creation (R7), specifically on brand image and ideological business mindset. In Haglöfs' case, this means finding strategies that not only preserve but also enhance the perceived value of the brand and its reputation as a pioneer in the sustainability arena. An additional initiative within repair and resale activities within a circular ecosystem not only maintains but also enhances this image. The potential launch of a second-hand setup by Haglöfs would preserve its strong circular brand image and could also enhance it significantly. For Haglöfs, the journey towards sustaining and boosting its circular brand image lies not only in continuing its sustainable practices but also in creating a deep, ideological commitment to these values across its operations and corporate culture. This is in line with Sandberg (2023), who argues that one of the key tasks for orchestration is to align the goals of the initiatives, both internally and in the ecosystem. By managing these two intertwined aspects—enhancing brand image through sustainable practices and creating a genuine, firm-wide ideological mindset—Haglöfs can improve its position as a leader in sustainability within the competitive landscape.

The initial product volume is an important aspect of the acceleration phase in a repair and resale ecosystem. There is an emphasis on resource efficiency and sustainability in circular ecosystems in literature (Salmi & Kaipia, 2022; Kanda et al., 2021). This can be reached by facilitating scalability in the take-back system through larger volumes of products. Haglöfs must prioritise this factor to ensure that the ecosystem not only attracts customers but also provides a solid foundation for sustainable growth and progression to further phases.

### 5.1.2 Important Barriers to Overcome in the Transition Phase

To develop a successful circular ecosystem for the repair and resale activities in the outdoor industry, Haglöfs need to transition from an accelerator to an orchestrator. During the transition phase, essential activities for establishing a circular ecosystem involve strategic compromises between specific and generic complementarities (Song et al., 2024). Individual partnerships evolve to become important components of the ecosystem, as value creation transitions from an individual effort to a collective effort, as can be seen in Figure 5.1. Additionally, resources that were previously managed solely by a central actor are now shared among multiple actors within the ecosystem. This will impact the role that Haglöfs has in the ecosystem and shift the infrastructure requirements in the ecosystem, such as IT, storage and transportation. The change in infrastructure requirements connects to Jacobides et al.'s (2018) argument on technological affordances that enable the ecosystem to develop, where the change will further drive the ecosystem emergence.

To reach this transition phase towards circularity, actors are required to start collaborating more closely and initiate multi-stakeholder coordination (Pietrulla, 2022). In literature, it is

also emphasised that actors in the ecosystem need to collaborate towards a common value proposition (Baldwin et al., 2024). Therefore, Haglöfs would need to establish a joint value proposition and the formation of mutually advantageous relationships in the transition phase. This phase is also important to establish a sustainable business model and the infrastructure necessary for the development of a circular ecosystem that the outdoor industry requires. In the transition, there is also a shift of focus within ecosystem orchestration, where the focus goes from resource orchestration to network orchestration, which emphasises joint value creation and collaboration (Shi & Shen, 2021). This is supported by the interviews, where the importance of smooth collaboration is described as growing with the emergence of the ecosystem.

A barrier to the transition from acceleration to orchestration is the challenge of developing a sustainable business model to achieve scalability in circular initiatives. Haglöfs therefore need to consider a business case that is sustainable long-term and the possible trade-offs made in design decisions. The sustainable business case is required to balance economic feasibility, environmental impact, and designing for long-term viability. However, a sustainable business model encounters several challenges, including the risk of internal competition and the potential cannibalisation of existing product lines. These challenges are not discussed in literature, although they offer significant implications for the central firm and the development of the ecosystem. To maintain profitability, Haglöfs must integrate repair and resale activities within the existing commercial set-up, avoiding internal competition. There are also trade-offs between product reparability and longevity that might affect Haglöfs' profitability and therefore need to be considered in this phase. Ultimately, the sustainability of design depends on an actor's ability to navigate the complex trade-offs to create products that are both durable and repairable, thereby maximising their environmental and economic value. By addressing the complexities of trade-offs in design, Haglöfs can cultivate a resilient business model that drives profitability and achieves sustainability goals in the long term.

### 5.1.3 Important Barriers to Overcome in the Orchestration Phase

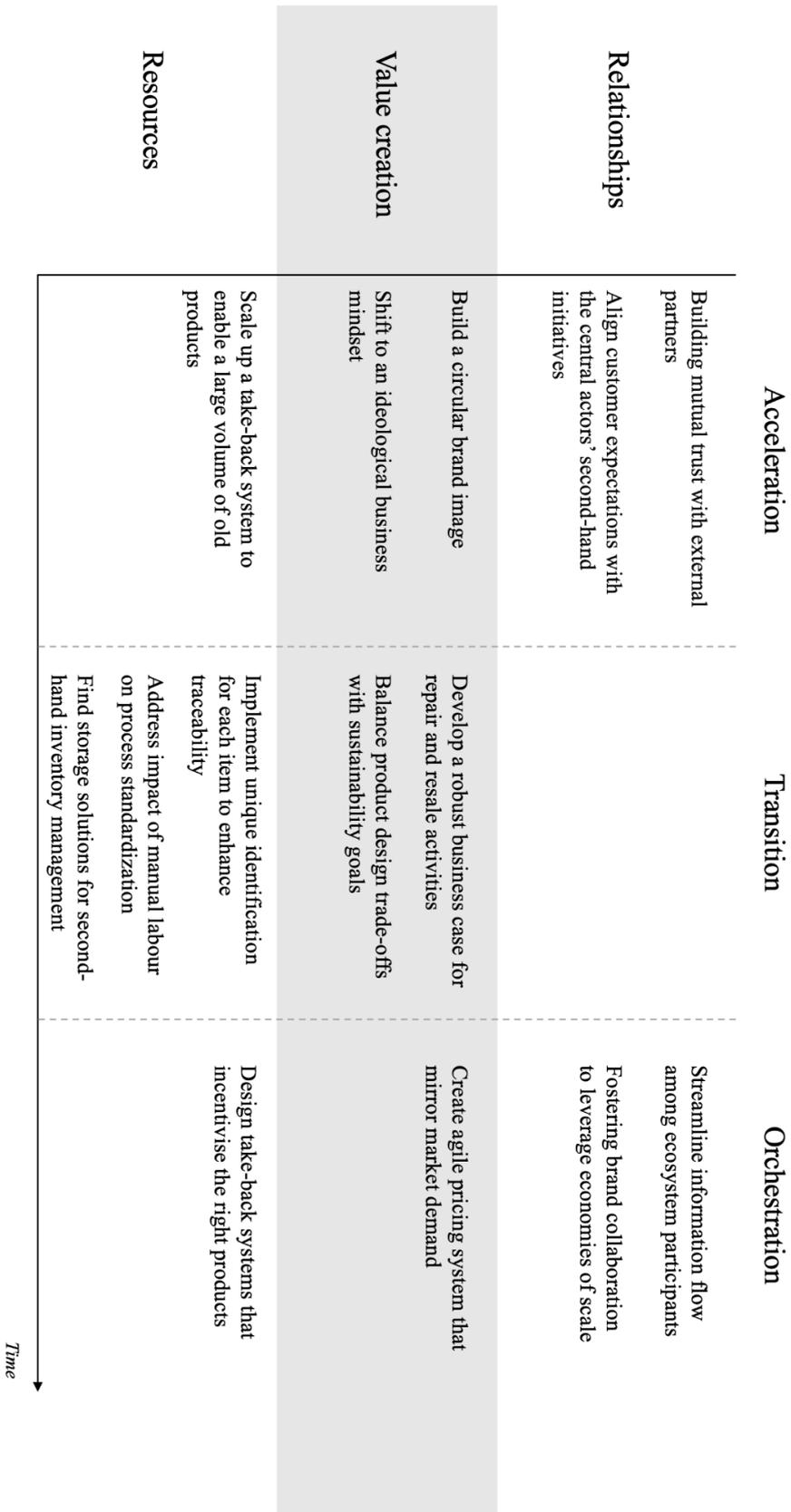
Finally, in the orchestration phase, the focus shifts to the integration of the actors within the ecosystem, prioritising connections and decentralised resource management to maximise joint value. The focus of the central actor in this phase, the orchestrator, is to achieve system-level outcomes (Adner, 2017). The orchestrator is integrated within the ecosystem, facilitating connections among actors and prioritising joint value creation. The resources are now decentralised within the ecosystem and the orchestrator plays a crucial role but does not directly hold the resources. This is the stage where close collaboration and the most value are created in the ecosystem. Initially, it was hypothesised that Haglöfs would be in the orchestration phase, but as the research progressed, it was realised that the company is still situated in the acceleration phase, the earliest stage of ecosystem emergence. For Haglöfs, there is a need to reach this phase quickly, as it is where maximum value is created in the ecosystem.

The orchestration phase necessitates united action among ecosystem actors, particularly collaboration among outdoor brands and efficient information exchange between all actors in the ecosystem. By focusing on collaboration instead of competition, the emergence of the ecosystem can be faster (Khanagha et al., 2020). The collective action among outdoor brands aims to achieve economies of scale, systemise repair services and optimise processes in the take-back system. To achieve this, collaboration in circular ecosystems requires continuous development (Sandberg, 2023, Shi & Shen, 2021). To ensure transparent communication and efficient collaboration, a seamless information flow between actors in the ecosystem is imperative. The data-driven approach to information sharing in the value creation systems discussed in the interviews allows Haglöfs to enable joint value creation in the ecosystem. This is in line with the literature on orchestration activities, which emphasises the improvement of internal and external processes to create effective circular supply chain activities (Sandberg, 2023; Shi & Shen, 2021). A data-driven approach would enable Haglöfs to be able to bid for the right products with a high demand and a potential profit margin would increase, the initiative could therefore be successful in the long run.

## 5.2 Central Actor Practices in Circular Ecosystem Emergence

This study has identified and categorised a set of practices that are pivotal for a central actor in order to handle the barriers identified during the emergence of an ecosystem. These practices, crucial to navigating the complexities of ecosystem development, are structured around three key aspects: relationship management, value creation, and resource allocation, as illustrated in Figure 5.1. Each of these aspects plays a crucial role in ensuring the successful establishment and growth of an ecosystem. Figure 5.2 further illustrates the practices, providing a visual guide to the central actor's roles across different stages of ecosystem emergence.

**Figure 5.2**  
*Practices of the Central Actor in Ecosystem Emergence*



### 5.2.1 Practices Central in the Acceleration Phase

During the early phase of ecosystem emergence, the relationships between actors in the ecosystem are constantly evolving. The actors are central to the development of the ecosystem (Trevisan et al., 2022), as they make up the foundation for the ecosystem. However, the coordination between them may present a challenge. In the literature, it is argued that challenges regarding risk-sharing and responsibility-sharing are present in partnerships in the ecosystem (Parida et al., 2019). This is consistent with what the study has found, where a lack of trust is evident in the early phase of ecosystem emergence and there is thought to be a risk of negative impact on brand reputation. Therefore, the central actor should focus on fostering trust in partnerships, while ensuring that their reputation is intact. To achieve this, central actors can use practices such as redistributing authority among collaboration partners and partially giving away control over certain repair activities in the ecosystem. In the acceleration phase, the customers are also a part of the ecosystem (Sandberg et al., 2018), and the perceived value creation among both parties defines the relationship between customers and actors. Ranta et al. (2020) argue that the customers' expectation regarding resurrect value, particularly the perceived value after refurbishment, decreases in comparison to new items. This is in contrast with Haglöfs' case, where customers hold too high expectations for second-hand products, almost on par with those for new items. Haglöfs should therefore focus on aligning customer expectations with its circular initiatives.

Throughout ecosystem emergence, there is an aim for individual and joint value creation. It is found in the literature that in the acceleration phase, the focus is on individual value creation. This aligns with the study's findings, as building a circular brand image and shifting to an ideological business mindset have been identified as key practices for the central actor in the acceleration phase. Through initiating circular repair and resale projects, Haglöfs can maintain and deepen its brand impact through the credibility and excitement such projects initially generate. This results in an improved brand image for the central actor, which is closely connected to positive actions for circularity. The practice of shifting towards an ideological business mindset helps Haglöfs create internal alignment among employees, ensuring that everyone strives towards a unified goal. Konietzko et al. (2020) agree with this, emphasising the need to have a shared goal and purpose for circular initiatives, both within the actor and within the ecosystem.

The resources in the ecosystem in the acceleration phase are considered more internal, where the central actor manages the resources, as illustrated in Figure 5.1. Leveraging internal resources is one of the aspects of resource orchestration (Sandberg, 2023), that are emphasised in the acceleration phase. This is because it focuses on individual company value creation (Shi & Shen, 2021). To create value in the system, circular customer offerings need to be managed by incentivising circular practices for customers (Sandberg, 2023). For Haglöfs this means focusing on the practice of scaling up a take-back system to enable a large volume of old products. A substantial product volume in the take-back system is needed to

generate initial excitement and provide a varied selection for customers. This is also crucial to ensure the success of the circular initiatives in the early phase of ecosystem emergence.

### 5.2.2 Practices Central in the Transition Phase

The transition phase has been defined during this study, as it is not yet defined in literature. Although in the literature it is described that the central actor moves from an accelerator to an orchestrator with the emergence of the ecosystem. In the transition phase of establishing a repair and resale ecosystem, the emphasis shifts from individual value creation to joint value creation. This means that the central actor, previously an accelerator, shifts to a collaborative approach where the actor, now an orchestrator, engages in both individual and joint value creation. This transition can be seen in Figure 5.1. The shift shows that there is a need to develop a robust business case for repair and resale activities. The importance of this development lies in the need for value to transition from being individually to jointly created, as reflected in the mentioned table.

The study also found that the central actor must balance product design trade-offs within sustainability considerations. The trade-off is missing in the literature, as longevity and repairability are often discussed separately due to the fact that they have opposite ways of working towards the same goal; sustainability. If used together two product design strategies cancel each other out, as an easy repairable product often has a shorter lifetime. Insights from earlier repairs can be used to enhance longevity. By designing for easier repairs the value can be created by all actors in the ecosystem and all participants in the ecosystem can contribute to value creation.

Resource allocation also undergoes a shift during the transition phase, moving from a mostly internal focus to a more external one as the repair and resale ecosystem matures. The development of systems that enable thriving ecosystems are referred to as technological affordances in the literature (Jacobides et al., 2018). In practice, this entails developing systems that enable an effective ecosystem, such as a unique identification system. Implementing a unique identification for each item is essential to improve traceability within a second-hand ecosystem. A robust identification system is required, capable of assigning a unique ID to each product, linking repairs to specific items, and ensuring the smooth exchange of information among different ecosystem actors. This system, though not covered in existing literature, is increasingly crucial for tracing products throughout their lifecycle and bridging the gap between internal and shared resources as the ecosystem evolves.

Storage solutions for second-hand inventory must also be adapted to include each item's unique characteristics, ensuring customers receive the exact product they ordered online. This challenge is expected to grow with the volume of products. While not specifically addressed in the literature, it is recognized as an important aspect of the transition from internally focused resources during the acceleration phase to shared resources in the orchestration phase.

Addressing the impact of manual labour on process standardisation becomes applicable in the transition phase. As the bottleneck of processing large volumes of unique products becomes apparent, this practice signifies a critical step for the ecosystem's progression from acceleration to orchestration.

### 5.2.3 Practices Central in the Orchestration Phase

In the orchestration phase, relationships between actors are well-developed and create a network in the ecosystem, as seen in Figure 5.1. In the literature, Shi and Shen (2021) introduce the notion of network orchestration, where the focus is on knowledge mobility and managing relationships to create value for the ecosystem. This is further highlighted by Parida et al. (2019), which argues that the orchestrator, i.e. the central actor, should simplify connections between stakeholders and encourage innovation. This is in line with what has been found in the study, where streamlining information flow between ecosystem participants is identified as a practice for a central actor in the orchestration phase. In the orchestration phase, efforts are focused on enhancing the speed and accuracy of information flow among ecosystem actors, by functions such as timing of repair instructions. This focused effort builds on trust and facilitates effective communication among actors in the ecosystem. It also fosters collaboration within the emerging ecosystem, which importance was highlighted by Parida et al. (2019).

Another practice for central actors in the orchestration is fostering brand collaboration to leverage economies of scale. The emergence of the circular ecosystem influences the collaboration and competition between actors (Pietrulla, 2022), thus possibly changing the way brands interact in the outdoor retail industry. In the study, it is emphasised that brands should collaborate in the orchestration phase to enable economies of scale and create cost-effectiveness in the ecosystem. This is in line with Baldwin et al. (2024), who argue for the importance of collaboration between autonomous actors in the ecosystem.

Throughout the emergence of the ecosystem, value creation is emphasised. In the orchestration phase, this is focused on joint value creation in the ecosystem. The study has found a practice for a central actor to enable joint value creation; the creation of an agile pricing system that mirrors market demand. An agile pricing system reflecting market demands is essential as the ecosystem matures. Developed during the transition and refined in the orchestration phase, such a system allows for dynamic pricing based on the supply and demand of second-hand products. This connects to arguments made by Bowman and Ambrosini (2000), where the decision to purchase a product depends on the ratio between the perceived use-value and the exchange value. For the pricing to be effective the customers must perceive the usefulness of the product to be higher than the monetary price that the customer has to pay for the product (Bowman & Ambrosini, 2000).

This argument also connects to the practice of designing a take-back system that incentivises the right products to enter the system. By incentivising the return of desirable products, the central actor can ensure that the market is not saturated with unwanted items. In practice, this means collecting second-hand products that are in demand. These are described in the literature as recurrent products that have been restored or refurbished and have been returned to the market (Ranta et al., 2020). The demand for recurrent products is described to be strengthened by the communication of economic and environmental benefits to the customers. Ranta et al. (2020) argue that this can be done with lower purchasing prices and equal functionality. This can be considered the aim of the take-back system, but it will pose a challenge as repairs can be time-consuming, which is reflected in the price.

### 5.3 Theoretical Contributions

This study contributes to the literature on ecosystem emergence by introducing the ‘transition phase’. Previous literature focused on two distinct phases; ‘acceleration’ and ‘orchestration.’ This was done without acknowledging the stage in between. Through this research, the ‘transition phase’ has been recognised as a critical step that bridges the gap between acceleration and orchestration, highlighting the theoretical framework of these phases as essential to a successful ecosystem emergence.

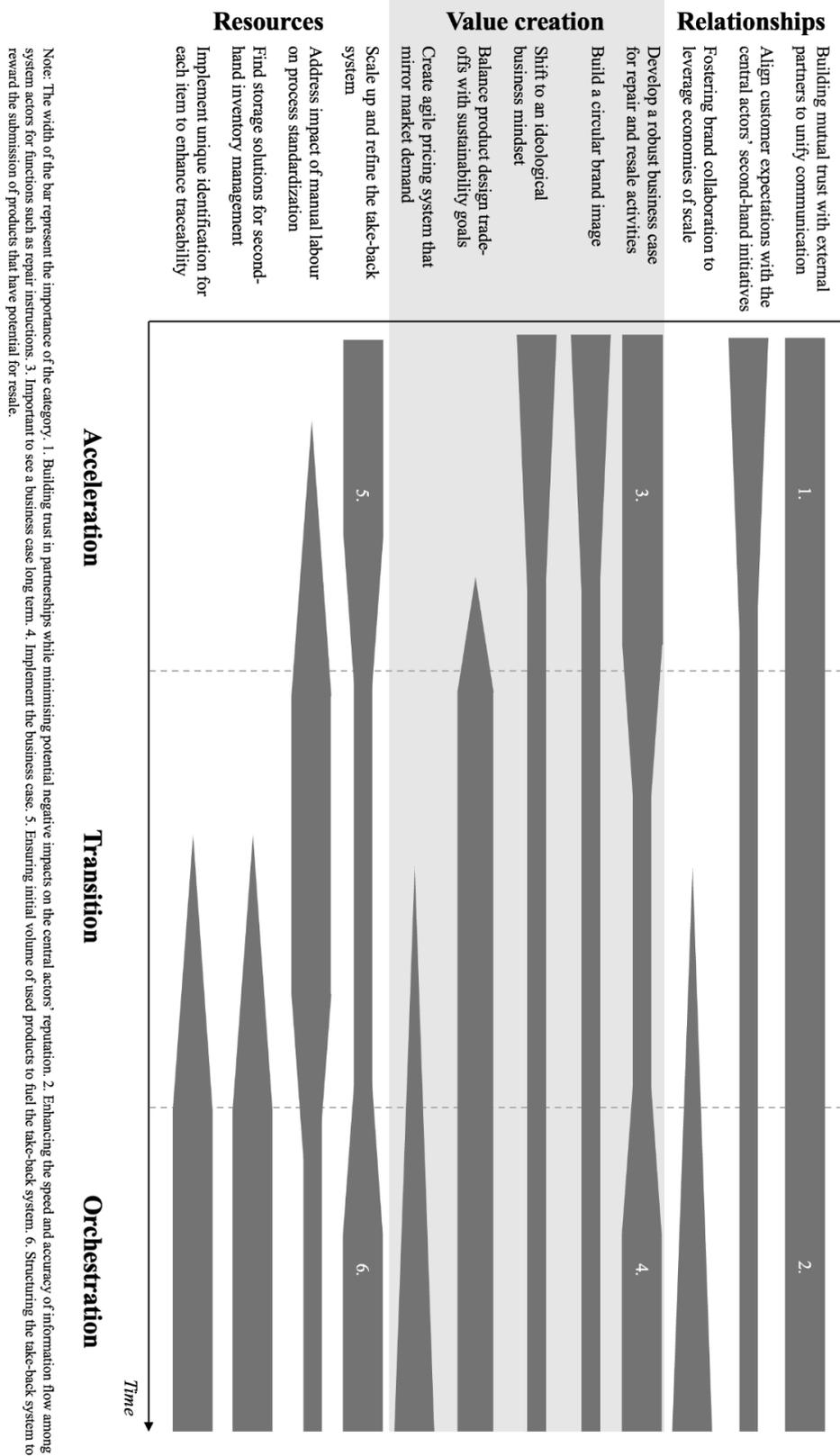
The case company for this study has been Haglöfs. Haglöfs has a history of circular initiatives before this study and can support the assumption that ecosystems do not arise spontaneously. Rather it has been seen that the emergence of ecosystems requires large efforts to be accelerated and orchestrated. Gaining access to a company’s ideas and thoughts in the early stages of ecosystem emergence allowed for a new perspective on the concept, previously missing in literature. The study also introduced the concept of emerging ecosystems in the context of physical products, which has previously mostly been explored in the context of software.

This study looks into the ecosystem emergence phases from Haglöfs’ standpoint, providing a nuanced understanding of the acceleration phase. As Haglöfs operates within this phase, the research offers insights into the ‘transition’ and ‘orchestration’ phases from the viewpoint of a central actor. Moreover, the study identifies several practices critical to each phase, thereby contributing a more granular approach to managing and understanding the processes that drive ecosystem emergence.

## 6. Practical Implications

The emergence of a circular ecosystem within the outdoor retail industry requires a series of strategic practices that vary in importance across different phases of ecosystem emergence. The previous section explored these practices in detail; however, a nuanced understanding emerges when these practices are weighted by their significance during each phase. Figure 6.1 provides a visual representation that maps the shifting priorities and highlights the critical practices as the ecosystem evolves. To better understand how the different practices are building on each other, the following subsections are exploring the aspects of relationships, value creation and resources across the phases of ecosystem emergence. This approach highlights the ever-changing dynamics of joint value creation within the ecosystem.

**Figure 6.1**  
*Weighted Practices During Different Phases in Ecosystem Emergence*



## 6.1 Relationships

Throughout the circular repair and resale ecosystem emergence, relationships undergo significant changes across the three phases as can be seen in Figure 6.1. These changes are marked by evolving collaboration dynamics and a reconfiguration of the actors involved. Identifying and understanding these shifts is important for central actors in the outdoor retail industry to efficiently navigate the phases of ecosystem emergence.

The cornerstone of relationship dynamics during ecosystem emergence lies in building mutual trust with external partners. The relationships with external partners will evolve with different focus areas in the three phases of ecosystem emergence. Therefore, the central actor needs to change its approach to relationship-building between the different phases. In the acceleration phase, the central actor should focus on building trust and engaging in the redistribution of control among ecosystem actors. Transitioning into the orchestration phase, characterised by closer collaboration, the emphasis shifts towards optimising the flow of information in the ecosystem. Given the complex interdependencies within the emerging ecosystem, efficient information exchange becomes imperative for ecosystem actors. The central actor should therefore focus on enhancing the speed and accuracy of information flow among ecosystem actors.

Furthermore, the alignment of customer expectations with the actor's second-hand initiatives is another relationship that needs to be tended to. This is primarily emphasised during the early stages of ecosystem emergence, particularly in the acceleration phase as seen in Figure 6.1. In this phase, the gap between customers' expectations for second-hand products and the delivered quality is identified in the study to be too large. This results in an under-delivering compared to customers' expectations. Therefore, it becomes essential for central actors in the outdoor retail industry to clearly communicate the feasible expectations that second-hand products can meet. This entails the understanding of the specific requirements customers have regarding aspects such as product information and photographs of the items. Failing to do so in combination with actors possibly having too high expectations of themselves may result in over-delivering on certain requirements, leading to inefficient resource utilisation. As the alignment between customer expectations and actors' offerings is achieved, expected during the transition phase, the significance of this factor gradually diminishes.

While fostering brand collaboration is not the primary focus during the acceleration phase, given that relations in this phase tend to be individual, it is important for the long-term sustainability and scalability of the emerging ecosystem. This necessity grows increasingly important as the ecosystem continues to evolve, as illustrated in Figure 6.1. As such, collaboration among brands is important in leveraging economies of scale, thereby maximising efficiency and optimising resources within the ecosystem. However, there is a risk for resilience to start the collaboration between brands in the late stage of circular initiatives according to the interviews, as brands do not want to join another brand's initiative, rather than jointly building it. Therefore, the central actor should start collaborations with

other brands in the transition phase of ecosystem emergence, to maximise the benefits of such a collaboration.

## 6.2 Value Creation

In the fast-changing outdoor industry, value creation within the emerging circular ecosystem is an important factor for success. The integration of circular economy principles can create large competitive advantages. The circular transition does not only support environmental sustainability but also enhances brand reputation and profitability. The circular repair and resale ecosystem is one example of such transformation potential and highlights the need for a robust business case through various stages of business evolution.

During the acceleration phase, the decision to advance with a new initiative is made, making it critical for actors in an emerging circular ecosystem. A solid business plan serves as the cornerstone for decision-making at this initial stage and is therefore essential for launching the circular repair and resale ecosystem. As the central actor transitions from the acceleration to the transition phase, the development of the business case might be the focal point, yet the groundwork laid earlier continues to steer actor efforts. This underscores the decreasing but ongoing importance of the business case in the transition phase which is illustrated in Figure 6.1. However, in the orchestration phase, the significance of the business case re-emerges strongly. It is during this phase that the central actor executes the strategies outlined in the business case, aiming to achieve profitability goals.

While the business case remains a fundamental tool, it is not the only way to create value. For example, actors like Haglöfs, a leader in the outdoor retail industry, can significantly benefit from enhancing their circular brand image. Initiating a circular repair and resale project not only maintains but can also deepen brand impact through the credibility and excitement such projects initially generate. However, the risk of initiating a circular project in collaboration with other actors is argued to have a potential negative impact on brand reputation, which could also hurt the brand image. By forming strong relationships and focusing on joint value creation in the ecosystem, this risk diminishes. This improved brand image in the acceleration phase can possibly stabilise as the circular initiative proves successful, continually associating positive actions with the brand.

Parallel to the brand image, the cultivation of an ideological business mindset has emerged as vital for central actors wanting to accelerate the emergence of an ecosystem. This shift emphasises the need for internal alignment among employees, ensuring everyone strives toward a unified goal. The success of the circular initiative significantly relies on unifying different perspectives within the actor, such as viewing the project as a charitable effort versus a commercial initiative. It is therefore essential for the central actor to focus on goal alignment among its employees and in the ecosystem as a whole.

The balance of product design trade-offs within sustainability goals introduces another layer of value creation for the central actor. This aspect becomes increasingly important as

feedback from repaired products allow the central actor to design more durable items, reducing common damages over time. This initiative depends on receiving and analysing returned products, making it a crucial step in the later part of the acceleration phase. In practice, the central actor should make its design process more data-driven, using the data obtained in the repair activities.

Lastly, an agile pricing system reflecting market demands is essential for actors in the outdoor retail industry as the ecosystem emerges. To ensure that the pricing system is effective, the central actor must adopt an agile pricing system that is data-driven, applying the data gathered from previous sales. This not only optimises profitability but also provides insights into which products hold higher resale value, guiding future product intakes.

Each of these elements—robust business planning, brand image building, ideological alignment, sustainable design, and agile pricing—contribute to the overall success of circular economy initiatives, showing how a varied strategy is essential in the evolving ecosystem of repair and resale activities.

## 6.3 Resources

The successful implementation of circular repair and resale activities initiatives in the outdoor retail industry, requires a strategic approach to managing product volume, labour, storage, and identification systems. As the central actor in the outdoor retail industry transitions through the various phases of the emerging ecosystem—from acceleration and transition to orchestration—each phase presents distinct challenges and opportunities that need specific strategies and operational adjustments. There are four essential resources for the ecosystem emergence in the outdoor retail industry, including the critical role of a take-back system, the impact of manual labour, the complexities of inventory storage and the necessity for a robust identification system. Understanding these factors is crucial for the central actor to build a sustainable, long-term second-hand market presence.

Establishing the take-back system is most crucial at the start, where a substantial product volume is needed to generate initial excitement and provide a varied selection for second-hand customers. The effectiveness of this system at the beginning, as detailed in Figure 6.1, sets the tone for the circular initiative. As the central actor enters the orchestration phase, the focus shifts from a large volume to selectively incentivising the return of desirable products. This ensures that the market is not saturated with unwanted items.

The risks associated with manual labour become increasingly apparent during the transition phase, where the bottleneck of processing large volumes of unique products becomes evident. To enhance efficiency, the central actor should implement a fully digital system for its product portfolio to accelerate the grading and identification processes. The transition from a physical to a digital product portfolio gradually reduces the emphasis on manual labour as the central actor advances into the orchestration phase. The central actor could also potentially go through a learning curve where common damages faster get identified and graded, enhancing

efficiency.

The third resource that needs to be managed by the central actor is storage solutions for the unique second-hand inventory. The resource gains importance as the volume of products gets larger. Each item's unique characteristics necessitate specific storage to ensure customers receive the exact product they ordered online. The need for a sophisticated storage system becomes more pressing during the transition phase and is vital for the long-term success of the circular initiative, as shown by the widening bar in Figure 6.1.

Within a circular ecosystem in the outdoor retail industry, each product's uniqueness underscores the necessity for a robust identification system. Such a system enables accurate product information and the location of specific items in the storage for accurate picking. In practice, the development of this system requires significant investment as it must be customised to the central actor's needs, potentially in collaboration with a third party. This underscores why the investment in and development of an identification system are critical in the orchestration phase, as manual tracking is unsustainable in the long run for a thriving circular ecosystem.

## 7. Conclusion

This master thesis has explored the phenomenon of ecosystem emergence within the context of repair and resale activities in the outdoor retail industry. Practically, this research offers central actors a deeper understanding of how to effectively navigate and manage the dynamic processes involved in ecosystem emergence, providing them with targeted practices for each phase of development. The study identified three central aspects of practices—relationships, value creation, and resources—that are essential for developing a successful emerging ecosystem. These aspects serve as the foundation for the formulation of strategic practices that the central actor can employ across different phases of ecosystem development.

Theoretically, the study makes a significant contribution by describing the ecosystem emergence by introducing three distinct phases, including the new ‘transition’ phase. This phase is critical as it includes specific activities necessary for the central actor to progress from the acceleration to the orchestration phase.

Overall, this thesis enhances our understanding of ecosystem in the repair and resale sector and contributes to the broader discussion on sustainable business practices within the outdoor retail industry.

### 7.1 Future Research

Future research should consider expanding the scope of exploration into ecosystem emergence by examining companies that are currently in the transition and orchestration phases. This approach would complement the findings from this study, which focused on a company in the acceleration phase. Expanding the research on this topic could provide a more comprehensive understanding of the dynamics at different stages of ecosystem development.

Additionally, there is a significant opportunity to further develop the concept of the transition phase. Investigating the specific activities that characterise this phase could refine the theoretical framework and offer more detailed guidance for companies navigating this critical stage.

Furthermore, exploring ecosystem emergence across various industries could be valuable. Since this study was conducted within the outdoor retail industry, the applicability and variability of the findings could differ in other sectors. By extending the research to include different industries, the robustness and generalisability of the ecosystem emergence model could be tested, potentially leading to broader, industry-wide insights.

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## 9. Appendix

**Figure 9.1**

*Data Supporting the Themes for Analysis*

Second- order theme	Representative quotations
<b>Accelerator</b>	
External Image Discrepancies	<p>“And there I feel like it’s so dangerous today. Not having control over it.” (R4)</p> <p>“Where you should be able to ensure that the customer interested in buying second hand gets a sufficiently large selection.” (R11)</p>
Internal value creation	<p>“And I also believe, considering that there are more who do this. I think it would be good for our brand, that it’s us who handle it ourselves.” (R4)</p> <p>“From my perspective, I believe more in brand value than monetary value.” (R1)</p> <p>“The pride in recycling such garments so that they come out again in a circular system- that’s sky-high.” (R4)</p> <p>“And as I said, then I feel that it’s important to do it from the heart. Not just doing it because everyone else is doing it.” (R8)</p>
Initiating volume in system	<p>“It’s not large volumes, I think it will be difficult to achieve extreme volumes in this, simply because the garments last so long.” (R5)</p>
<b>Transition</b>	
Sustainable business model development	<p>“To do something like this and try to make it work, it’s not about making money. It’s about not losing a lot of money, really.” (R4)</p> <p>“So that issue as well in ecosystems, because there a lot of times everybody starts with a clear vision and strive to make something but there is not always a business in there.” (R7)</p> <p>“Because at the end of the day, it’s part of how you structure your commercial set up. If you want to make good on the promise of extending the life of a product, otherwise it’s just a marketing activity.” (R7)</p> <p>“To enable repair, enable recycling, that’s</p>

	<p>what you should have asked for... We make products that often can't be repaired, it becomes too expensive." (R5)</p> <p>"When we start repairing, it is about product design for repairability." (R7)</p>
Infrastructure development	<p>"This is a demand that must be met, so we need some kind of exchange between these collection and distribution points so that all necessary data returns to the product." (R5)</p> <p>"We need to develop this, I haven't seen it yet in this context. So we have to develop it. It's not complicated as a concept, but we are not an IT company." (R1)</p> <p>"Minimise the steps as much as possible. Minimise the shipping between different places." (R3)</p> <p>"But to handle each brand and each garment separately in its own logistics chain, that will drive a lot of emissions and costs." (R11)</p>
<b>Orchestrator</b>	
Efficient collaboration efforts	<p>"I think you have to move away from the idea that each actor should manage their own second hand." (R11)</p> <p>"We would provide them with enough information so that they could handle some pieces themselves." (R10)</p>
Systems for value creation	<p>"So the natural step is some kind of good take-back system, where the customer has the opportunity to return their garment." (R5)</p> <p>"But we need to decide how to use it, how to incentivise it. Because the take-back as a brand it should be on us to take it back. We should incentive that." (R5)</p> <p>"[A bidding system] that is like, it will say, how much, depending on the sales, what was sold at the end, they could try and basically say "alright I sold it for a 100 euros, I offer 50"." (R7)</p>

*Note: The interviews have been conducted in the interviewees' mother tongue and translated to English*

## **Interview guide**

The purpose of the thesis is to look at value creation in an emerging circular ecosystem for repair and resale activities within the outdoor retail industry. We particularly want to focus on the resources and capabilities needed to set up a circular ecosystem. To prepare you for the upcoming interview, we have some additional information.

The interview will be divided into three parts, where you can find an introduction to each part below. Please read the introductions and think about your perspective on a potential ecosystem within repair and resale.

### **Background**

In this introduction part, we would like to get to know you better. What is your role within Haglöfs and how has your role developed over time?

### **Future of Circular Ecosystems**

In order to be able to understand how the repair and resale circular ecosystem could be connected to Haglöfs we want to dig deeper into the structure of a potential emerging ecosystem. Ecosystem actors in this thesis are defined as autonomous, and complementary and the products and processes in the ecosystem work together.

We know that Haglöfs historically had Haglöfs Restored and in this part of the interview we want to focus on the potential emergence of a similar ecosystem connected to the repair and resale activities of Haglöfs' products. Our discussion will revolve around the potential ecosystem of actors involved in the activities, what roles they play and what role Haglöfs would have.

### **Joint Value Creation in the Ecosystems**

In this final part of the interview, we focus on the value jointly created in the potential ecosystem. The questions will focus on how value is created and Haglöfs' role in creating it.

### **History of Collaboration**

Here we are interested in hearing about external collaborations for circularity, for example, during Haglöfs Restored. We will here discuss which actors collaborated, what roles they had and what role Haglöfs had in the value chain.

## Questions during interview

### **Background question: Tell us a little bit about yourself and your role at Haglöfs**

- Would you like to tell us about your role at Haglöfs?
- Has your role changed in the last few years?

### **Future of Circular Ecosystems**

In the following question, we limit ourselves to the value chain after the item has been sold, so only the items on the secondary market are included

- If Haglöfs would be a part of a successful repair ecosystem. What do you think it would look like? Can you please draw the ecosystem?
  - What actors are involved in each process?

Now let us look a little bit deeper into the ecosystem drawing and the relations between the actors

- How would the functions and actors be connected?
  - How would the actors collaborate within each function and between functions?

If zooming in on Haglöfs as a part of this ecosystem,

- What role would Haglöfs play in the ecosystem?
  - Do you think that Haglöfs should take more/less responsibility in the ecosystem?

Let us zoom out again,

- What difficulties and pitfalls could happen in the ecosystems?
  - What could be done to prevent these?

### **Joint value creation in the ecosystem**

- How do you view value creation in the ecosystem that you drew on the last question? What is needed to enable value creation?
  - Where is it created and who is responsible for its creation?

We are now going to present two questions for you. In this initial question, we want you to think big regarding the definition of value.

- How can Haglöfs enable joint value creation in the ecosystem?
  - What should Haglöfs' role be in order to create joint value in the ecosystem?

Now we want you to answer the same question but think about monetary value creation.

- How can Haglöfs enable joint value creation in monetary terms in the ecosystem?

- What should Haglöfs' role be in order to create joint monetary value in the ecosystem?

In this question, we want you to both think big and in monetary terms about the value.

- What is needed from Haglöfs in order to enable joint value creation?
  - What processes and resources should be outsourced/in-house?
  - What resources and capabilities are needed for Haglöfs?

### **History of Collaboration**

- Please draw the value chain for Haglöfs Restored, with all the processes involved.
  - Who were the actors involved? Please add them to your value chain
- Who was the initiator of the partnerships?
- Who were the collaboration partners Haglöfs had in Restored?
  - What roles did the actors have?
  - What role did Haglöfs have?
- How did the collaboration go between the partners in the ecosystem?
- Why do you think Haglöfs Restored ended/shut down/closed down?



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