

SUSTAINABILITY SEWN IN

**A QUALITATIVE STUDY ON SMALL FASHION FIRMS' SUPPLY
CHAIN RESILIENCE TOWARD SUSTAINABILITY DISRUPTIONS**

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Abstract:

The fashion industry is one of the most implicated by the increasing demands for environmental sustainability. Through a qualitative and cross-sectional process, this study investigates how small fashion firms' supply chain resilience is affected by the dynamic nature of sustainability demands the industry faces. By interviewing a sample of seven small firms and one fast-growing SME, the findings are subsequently analyzed through the theoretical framework of a resource-based view. The theory, with its contingent extension observes the social capital that firms and their suppliers can develop through their relationship and structural connectivity of their network. The analysis considers specific aspects and context in the observations made, and identifies unique capabilities and activities small firms have to maximize the practical output of their comparably small size. Most importantly, this thesis contributes to the current knowledge on supply chain resilience among small firms, and the effect sustainability-related pressures and disruptions have on them. With increasing regulatory demands for reporting sustainability, adequate comprehension of potential legislation's effect on all parts of the market facilitates in safely transitioning to a more sustainable future.

Keywords:

Fashion Industry, Resilience, Small Firms, Supply Chain, Sustainability

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– Daniel and Siri

Glossary

Table I. Glossary

Abbreviation	Definition
CRBV	Contingent resource-based view
CSRD	Corporate Sustainability Reporting Directive
LORG	Large organization
RBV	Resource-based view
SCRES	Supply chain resilience
SME	Small and medium-sized enterprises
SSCM	Sustainable supply chain management

Concepts

Table II. Definitions

Term	Definition
Sustainable supply chain management	The degree to which a manufacturer strategically collaborates with its supply chain partners and collaboratively manages intra- and inter-organization processes for sustainability (Wolf, 2011)
Supply chain resilience	The supply chain's ability to be prepared for unexpected risk events, responding and recovering quickly to potential disruptions to return to its original situation or grow by moving to a new, more desirable state (Hohenstein et al., 2015)
Small firm	Defined by the authors as a firm with an annual revenue below 50 million SEK

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Executive Summary

This thesis contributes to the existing literature by providing insights into how specifically small fashion firms build supply chain resilience. The focus on the clothing industry also highlights the unique challenges faced by these firms in contrast with existing literature which has largely focused on larger organizations (LORGs). The findings suggest that smaller firms face unique challenges in the form of less purchasing power and increased vulnerability due to limited resources. However, they adapt to this by building strong relationships with suppliers which allow them to sustain resilience and competitive advantages such as product and order flexibility. To illustrate how these small firms often work with a limited number of suppliers and build deeper connections and more personalized relationships, the discussion on the structural dimension of social capital also emerged as especially relevant for literature on supply chain resilience. Additionally, other limitations of small firms such as their generally lower liquidity and shorter planning horizons are discussed in relation to environmental sustainability. These factors impact their ability to influence suppliers which ultimately could create challenges for sustainable supply chain management practices and thus also external demands such as sustainability reporting. Finally, this provides several important implications for practice on three dimensions, policy, organizational and managerial.

From a policy perspective, initiatives like the Corporate Sustainability Reporting Directive (CSRD) could compel small firms to formalize their sustainability policies and practices to ensure that suppliers along the supply chain incorporate sustainability measures. There could thus be potential for streamlining sustainability management and reporting among small firms, or for more small firms to engage sustainability consultants for supply chain management. However, liquidity constraints could hinder participation as less successful or less committed firms may be reluctant or unable to invest in such initiatives, despite their increasing necessity for long-term viability.

As for organizational implications, as supply chain resilience is an ongoing process and capability which requires continuous learning and adaptation, organizations should encourage a culture of learning and innovation within the organization to foster creativity and flexibility in response to changing sustainability demands and market dynamics. This

might for instance involve investing in employee training and development, exploring new technologies as well as business models facilitating the integration of sustainable supply chain management into the firm's core operations. However, as small firms often operate on tight budgets, again, collaborating with external stakeholders and e.g. suppliers to identify opportunities and potential disruptions would likely be a highly advantageous approach.

By leveraging the knowledge and expertise of external relationships, including both with suppliers and e.g. industry associations or sustainability experts, small firms can gain valuable resources and capabilities. This approach not only enhances the small firm's ability to anticipate and respond to dynamic sustainability demands, but also fosters strategic relationships which could drive sustainable supply chain management and competitive advantage. Additionally, this would help mitigate the effects of the resource constraints often characterizing small firms while increasing the resilience of their supply chains.

Managerially, there may be a need to align sustainability practices with supply chain resilience strategies and recognize their interdependence, which also emphasizes the importance of understanding suppliers' capabilities and goals. This is motivated by how firms can build resilience capabilities while advancing sustainability goals. In order to do this, firms should invest in building relationships based on trust, mutual understandings and objectives with suppliers to build social capital and ultimately resilience. In addition, by developing resilient relationships, firms can access valuable resources, expertise and support during times of disruptions.

It is also important for managers to note that building social capital requires a degree of proximity and regular dialogues. Thus, managers could consider establishing physical presence, if only temporary, in key locations to facilitate closer interactions and strengthen relationships. Additionally, leveraging technology-enabled communication platforms may facilitate real-time collaboration and information sharing, enhancing responsiveness and agility in the face of disruptions. In other words, by investing in proximity and dialogue, managers can deepen their understanding of supplier capabilities, better anticipate potential risks and more proactively mitigate disruptions.

1. Introduction

1.1 Background

Fashion, hailed as “perhaps the most globalized industry of all” (Bonacich and Appelbaum, 2000, p.4), encompasses complex global supply chains, spanning material sourcing, treatment, production, and worldwide shipping of finished products (Montero Bressán, 2023). The ability of a firm to efficiently structure and strategize its supply chain to foster growth and resilience has become an increasingly valued aspect, as these ever-evolving times have seen constant disruptions reshape the world, the fashion industry being no exception (Li et al., 2015). Regional and global economic crises occur every few years and oftentimes cause irreparable changes to the fashion industry (Montero Bressán, 2023). A concept commonly used to describe the ability of a firm’s supply chain to both be resilient toward and recover from these external disruptions it faces is Supply Chain Resilience (SCRES) (Tukamuhabwa et al., 2015). While the concept is increasingly being researched (Katsaliaki et al., 2022), the knowledge gained seems warped to mostly relate to LORGs, massive international firms that sell for billions of SEK every year (Safari et al., 2023). Meanwhile, research on SCRES specifically among smaller firms is in short supply (Ibid). If the findings based on LORGs were to be inaccurate for smaller-sized firms, then this imperfect understanding of their resiliency capabilities and opportunities may make not just them, but their entire market as a whole more susceptible to unanticipated exogenous disruptions.

A significant change following a recent disruption, the Covid-19 pandemic, is consumers’ increasing demands for environmental sustainability, something especially relevant for retailers in fashion (Tesarova and Krizanova, 2022). Besides being complex, the trillion-dollar clothing industry is also consistently ranked as one of the three most pollutive industries in the world (Climate Trade, 2023). As consumer attitudes change, firms have had to alter sourcing, production, and shipping components of their supply chain to meet current standards in sustainability (Yin et al., 2023). Parallel to this, national governments and the European Union have through the years added legislation and requirements to

progressively heighten the level of sustainability and transparency companies and their supply chain must adhere to (Fonseka and Richardson, 2023).

Starting in January 2024, the EU's Corporate Sustainability Reporting Directive (CSRD) establishes a new corporate sustainability reporting standard for large organizations (LORGs) in the EU. While it only targets large firms meeting given size requirements (see Appendix 1), listed small and medium-sized enterprises (SMEs) will face a more limited set of disclosures. This demonstrates the EU's intent to standardize sustainability reporting beyond just the largest corporations in the internal market (European Commission, 2023). While the market's smaller firms currently face no new requirements from this directive, the implications grow when considering the uncertain timeframe of future inclusions in continued regulatory changes, and the fact that both their bigger competitors and suppliers will need to adapt immediately.

With lacking knowledge on SCRES within small and micro-sized organizations, little can be definitively concluded about their overall preparedness for these potential disruptions. But as sustainability-related shocks have historically proven to hugely affect the fashion industry, the necessity for this knowledge seems more important than ever (Montero Bressán, 2023). Through the theoretical framework of a resource-based view, this study therefore investigates the resources and capabilities small fashion firms use for resilience toward the ever-changing demands for sustainable supply chains.

1.2 Prior Research and Research Gap

While the importance of supply chain resilience is echoed in existing research (Al Naimi et al., 2020), it generally fails to state the role firm size and industry has when evaluating which resiliency measures are relevant and possible for firms to take (Safari et al., 2023). Current literature on SCRES usually unspecifies firm size or mostly looks at LORGs (Ibid). Meanwhile, literature in management frequently discusses the implications on firm strategy, resources and risks depending on overall size (Fort et al., 2013), and generally denotes it as having a notable effect on performance (Ibhagui and Olokoyo, 2018). With such frequently made distinctions between differently sized firms, SCRES as a concept is likely to empirically differ between the groups as well.

As an important segment of the market often credited as a driving force for innovations and productivity (Forsman, 2011), small firms are simultaneously experiencing short lifespans and low survival rates (Bonsu and Kuofie, 2019). With factors such as purchasing power being important parts of firm operations that empirically vary with size, the current knowledge gap's assumption that SCRES does not significantly vary with firm size is unlikely to be sustainable. With small firms having proven their importance to the market, and the relevance of supply chain sustainability and resilience growing (Marchese et al., 2018), the little attention given to this segment raises question of how well small firms are understood. With environmental sustainability as growing cause for modern disruptions (Jabbarzadeh et al., 2018), and the fashion industry as one of the greatest polluters, it is therefore of interest to investigate how small-sized fashion firms handle the changing demands for supply chain sustainability.

1.3 Purpose and Research Question

The purpose of this study is to better understand what resources and capabilities small firms in the Swedish clothing industry have and how they utilize them to create a resilient supply chain capable of handling sustainability-related shocks and changes.

As Sweden is one of the highest ranked countries for sustainability (Sustainable Development Report, 2023), where small firms are valuable contributors of innovations (Halme and Korpela, 2013), it is imperative to understand their SCRES practices in the real world. Due to the current gap in knowledge, future sustainability regulations or standardizations of demands may be implemented without an adequate understanding of their implications on small firms. Observing small firms' resources, capabilities, and activities to sustain competitive advantages and growth through the framework of a resource-based view, the research question is:

How are small firms' supply chain resilience affected by the increasingly dynamic demands for sustainability?

1.4 Delimitations and Scope

The study is delimited to investigate SCRES among small fashion firms as it relates to their ability to manage the ever-changing demands for environmental sustainability. The concept's aforementioned gap in knowledge for small firms makes it the most relevant segment to observe. With the specification of sustainability-related changes and disruptions, the fashion industry is the one of the most pollutive industries where small firms represent a significant portion of the market (Fair Action, 2023). The scope is industry-specific since the clothing industry's inherent complexity limits how many other industries could be included in the research before assumptions about sector differences compromise the applicability of the study's findings. The study is geographically limited to Swedish firms due to accessibility factors and the country's consistently high sustainability-related rankings. Sweden's EU membership also allows for considering the possibility of changes in sustainability regulation beyond the national level. While this study is especially concerned with environmental sustainability, external demands and evaluations generally incorporate a broader view that considers economic and social aspects alongside the environmental dimension (Mosgaard and Kristensen, 2023).

2. Literature Review

2.1 Global Uncertainty and Supply Chain Disruptions

As management research has extended its focus from product and service-related risks to encompass broader uncertainties (Han and Um, 2024), scholars have proposed distinguishing between macro and micro-level uncertainty (Davis, 1993; Trkman and McCormack, 2009; Hasani and Khosrojerdi, 2016; Flynn et al., 2016). Macro-level uncertainty pertains to global disruptions caused by macroeconomic fluctuations, market turbulence, and sustainability challenges (Beckman et al., 2004; Germain et al., 2008), while micro-level disruptions stem from changes at a national, regional, or local level (Ghosh and Wolf, 1997). These can range from national economic downturns or legislative changes to unexpected setbacks at the local level (Cardoso et al., 2014). Due to these risks and uncertainties implying potential disruptions, management research is increasingly concerned with supply chain resilience as a fundamental concept (Han and Um, 2024).

2.2 Supply Chain Resilience

When investigating firm resilience, scholars and practitioners alike agree that firms' supply chains are critical to study due to their importance in environments prone to disruptions (Ahi and Searcy, 2013; Manathunge et al., 2021; Bak et al., 2023). In other words, a firm's exposure to potential disruptions is highly implicated by its supply chain management. Supply chain resilience (SCRES) is defined as the capacity of the supply chain to anticipate unforeseen risks, respond effectively and swiftly recover from disruptions to restore its initial condition or even transition to a more advantageous state (Hohenstein et al., 2015).

Historically, diversification and agility have been proven to be supply chain features effective for resilience (Yin and Ran, 2022; Fayezi et al., 2016). Common practices of SCRES also include strengthening firm transportation and logistics, improving flexibility of the supply chain's capacity (Jain et al., 2017) or firm readiness, the capacity to

anticipate and prepare for potential disruptions (Iftikhar et al., 2021; Rudolph and Repenning, 2002). In recent years, sustainability has also become a critical aspect of SCRES (Ansari et al., 2017) as efforts to mitigate environmental impacts increase (Liang et al., 2024).

2.3 Sustainable Supply Chain Management

2.3.1 Relation to Resilience

In current research, scholars agree that sustainable supply chain management (SSCM) is playing a growing role in building capabilities for resilience (Eggert and Hartmann, 2023; Coskun and Erturgut, 2023). SSCM can be defined as the management of material, capital flows and inter-firm collaboration throughout the supply chain while aligning with objectives spanning environmental, economic, and social dimensions of sustainable dimensions (Seuring and Muller, 2008, p. 1700). In addition, the three dimensions emerge from customer and stakeholder demands (Ibid). However, while fewer supply chain management studies have focused on the economic dimension, there is ongoing debate as some studies present sustainability as a unified concept combining environmental and social elements (Pagell & Wu, 2009; Parmigiani et al., 2011), whilst other scholars view environmental and social sustainability as distinct concepts with unique drivers and outcomes (Pullman et al., 2009). Focusing on the environmental dimension, an environmentally sustainable supply chain integrates environmental considerations into such aspects of supply chain management as material selection and sourcing, manufacturing, and distribution to consumers (Srivastava, 2007; Seuring & Müller, 2008). This approach aims to meet stakeholder expectations while simultaneously enhancing profitability and competitiveness (Gualandris et al., 2014).

There is still limited knowledge about the relationship between SSCM and resilience (Negri et al., 2021; Fahimnia et al., 2019; Swanson et al., 2018) despite the apparent intersection between the two concepts (Eggert and Hartmann, 2023) and existing literature acknowledging the importance of integrating sustainability in supply chains (Rajesh, 2018; Bag et al., 2019) for building supply chain resilience (Jain et al., 2017).

Literature on SSCM addresses several central themes, including the motivations for adopting sustainability practices, the necessary resources for implementation, the importance of supplier management and collaboration for building resilience (Gölgeci and Kauivalainen, 2020) as described in the following subchapters.

2.3.2 Incentives for Adopting a Sustainable Supply Chain

As sustainability entails maintaining continuous operations, equity investors and large retailers increasingly seek firms capable of thriving amidst growing sustainability demands (Luz et al., 2024). These demands include requirements of demonstrating sustainability to both investors and buyers, often through various certificates, ESG scores (environmental, social and governance) or acts of transparency (Ayuso et al., 2013). There is thus often incentive for firms to employ sustainable practices in their supply chain to be able to acquire financing and handle sudden or substantial external sustainability-related disruptions (Han and Um, 2024; Hamdy et al., 2018).

Implementing sustainable practices can however be challenging, with companies often prioritizing mitigating the adverse effects of their operations rather than to proactively build a sustainable supply chain (Rodriguez et al., 2016). As mentioned, the exact advantages of environmental and social sustainability practices in supply chains are still under investigation, with certain studies indicating that "it pays to be green" (Hart & Dowell, 2011), while others suggest that profitability is context-dependent (Seuring et al., 2008; Chowdhury et al., 2016). There is thus a limitation in the existing academic debate regarding if sustainable practices create resilience.

2.3.3 Resources and Collaboration

In order to increase resilience and procure benefits from sustainability practices through SSCM, effective supplier management is essential (Hart and Dowell, 2011) as the resources and capabilities needed for SSCM are often enhanced through collaborative relationships between firms and their suppliers (Johnson et al., 2013). This however depends on relational resources like trust, commitment, and shared values (Perry et al., 2015). Collaboration with suppliers could therefore lead to increased environmental performance if these relational resources are leveraged right (Sancha et al., Perry et al.,

2015). However, collaboration also requires clear communication, shared goals, and consistent monitoring of sustainability performance (Gualandris et al., 2015). Furthermore, building relationships of this nature across multiple tiers of a supply chain can be challenging due to factors such as its complexity, power asymmetries, and supplier technical expertise (Wilhelm et al., 2016).

2.3.4 The Influence of Industry

The fashion supply chain can be defined as a system operated under the guidance of retailers, involving both backward and forward flow of fashion products, funds, and information, whose defining decisions are shaped by the market's consumer demand (Choi et al. 2014). The fashion industry heavily depends on global and complex supply chains (Chan et al., 2024) and requires a multidisciplinary approach covering product design, production processes, and supply chain stages (Curwen et al., 2013).

Due to the sustainability-related threats and opportunities firms in fashion face today, it is essential to manage and measure risks to increase SCRES toward the dynamic societal demands (Köksal et al., 2017). However, oftentimes with a greater environmental efficiency comes a trade-off between producing enough clothes to meet the predicted demand, and creating excessive pollution (Niu et al., 2017). As a firm enhances its agility and foresight to recognize and respond to disruptions, the significance of this balance increases even further (Swafford et al., 2008).

2.3.5 The Influence of Firm Size

While smaller firms in the industry have received less academic attention, that is not to say that no research at all has been conducted. For pursuance of firm sustainability, firm size could have a significant impact (Pagell and Wu, 2009) as it extends to the development of sustainability-related capabilities essential to implement “greener” strategies (Liu et al., 2017). While smaller firms are often seen as more novel and innovative (Gerd, 2020), research suggests that they face higher costs in terms of time dedicated and knowledge needed for adopting sustainability practices (Caniato et al., 2012; Zhang et al., 2017). In particular, small firms may struggle to meet corporate social responsibility requirements due to cost and resource constraints, even though they

represent over 90% of all businesses and 60% of employment worldwide (Fritz et al., 2017). Certain research explains this discrepancy by observing firm size as a moderating effect on supply chain sustainability when divided into external and internal supply chain management (Yang et al., 2023).

When distinguishing between the internal supply chain practices, such as purchasing or selling strategies, and the external supply chain, that being the actual suppliers of materials and manufacturing, the findings suggested that smaller firms were capable of implementing internal SSCM initiatives with generally good effects (Liu et al., 2012; Wong et al., 2012). Here the small firms could use their internal dynamic capabilities to train employees and promote environmental awareness similarly to LORGs (Upstill-Goddard et al., 2016). But size becomes a more significant moderator when observing how well external SSCM practices affect economic performance, where LORGs can use their greater financial resources and integration ability to more influentially motivate members in their external supply chain to participate in sustainable activities (Koufteros et al., 2007). SMEs, who are generally in a comparably weaker position among their suppliers and less capable of financing vertical integration in their supply chain may therefore struggle more with SSCM overall (Yang et al., 2023).

The diversification of a firm's supply chain is described as a crucial resilience strategy (Yan et al., 2023), and the Covid-19 pandemic corroborated that notion. While the lockdowns heavily affected both the importing and retailing of clothes, firms with a more diversified supplier base experienced greater profitability in both the original disruption period as well as the recovery period compared to those that were less diversified (Lin et al., 2021). While both the depth (number of tiers) and width (number of suppliers within each tier) are shown to decrease firm vulnerability to losses during times of significant disruptions (Mizgier et al., 2015), research does not as definitively state how important firm size is in allowing for this capacity specifically within the fashion industry (Narasimhan and Kim, 2002; Yin and Ran, 2022).

3. Theoretical Framework

This chapter explores the Resource-Based View (RBV) and its extension, the Contingent Resource-Based View (CRBV), as foundational frameworks for understanding organizational resilience and sustainable supply chain management in contemporary literature. Furthermore, the complexities of resilience are explored through the lens of social capital.

3.1 Resource-Based View

The Resource-based View's (RBV) is commonly considered by scholars as a significant theoretical approach for identifying different resources firms can combine and leverage in order to build competitive advantages (Barney, 1991). Furthermore, it has been widely adopted as a theoretical approach to research resilience capability (Brandon-Jones et al., 2014; Eltantawy, 2011; Lee and Rha, 2016) where resilience is regarded as a dynamic capability through which firms attain enhanced performance (Yang and Hsu, 2018). The theory posits that this advantage can be sustained if derived from the value, rarity, and how imitable and substitutional the firm's deployed resource is (Barney, 1991). As RBV is built on the assumption that firms possess unique resources and capabilities, and that both their interplay and individual values are complex phenomenon to observe (Sirmon et al., 2008), distinguishing between the two and considering the firm's unique context is something literature on the theory is increasingly doing (Ferreira and Fernandes, 2017).

3.1.1 Contingent Resource-Based View

The Contingent Resource-based View (CRBV) serves as an extension of the traditional model to better consider more context-specific variables and the adaptivity (Donaldson, 2004) of a firm in a dynamic environment (Ling-Yee, 2007). As resilience to contingencies and risks comes from a firm's usage and combination of its resources and capabilities, the CRBV illustrates how firms build sustained competitive advantages (Chowdhury and Quaddus, 2017).

The theory distinguishes between organizational and operational contingencies in the firm (Parast, 2022), with firm size being a particularly notable organizational contingency in this study. In operational contingencies, the collaborative capabilities of a firm are one of the most important factors for SSCM (Münch et al., 2022), with the firm's network structure, including supplier selection, as a decisive component (Almeida et al., 2021). However, there is still demand for further research to include a social aspect in the operationalization of collaborative capabilities in sustainability, especially for smaller firms (van Hoof and Theill, 2014; Gölgeci and Kuivalainen, 2020).

3.1.1.1 Sustainability for Competitive Advantage

The CRBV also illustrates how firms can leverage their resources to increase environmental sustainability (Dicuonzo et al., 2020) since environmental sustainability efforts within a firm must be adapted to an external environment with different contingencies to achieve sustained competitive advantages. From a contingency perspective, firms must be agile in their approach to sustainability, accounting for e.g. varying regulatory landscapes and consumer expectations. This flexibility allows firms to optimize their resources and capabilities in a way that reflects the changing conditions of a broader business environment (Reuter et al., 2010). Thus, strategies such as sustainable development, pollution prevention and product stewardship can strengthen organizational competitiveness and efficiency (Sharma et al., 2007; Rahman et al., 2020). Finally, when aligning firm operations with external sustainability goals, the CRBV underscores the importance of leveraging the most fitting resources and capabilities for a sustained competitive advantage to be possible (Dicuonzo et al., 2020).

3.1.2 Social Capital

Since collaboration and partnerships help develop resources that potentially leads to competitive advantages (Sancha et al., 2016; Johnson et al., 2013; Huo et al., 2016), they become important points to discuss from a resource-based view. Thus, developing social capital can be crucial for firms (Lee and Jones, 2015). Social capital is defined as the sum of actual and potential resources attained through the network of relationships possessed by a firm or an individual (Nahapiet and Ghoshal, 1998), and is commonly studied in conjunction with strengthening supplier relations as a strategy in SCRES (Uzzi, 1997).

Social capital is generally divided into three highly interrelated dimensions: structural, relational, and cognitive (Nahapiet and Ghoshal, 1998).

3.1.2.1 Dimensions of Social Capital

The structural dimension concerns the configuration and properties of an actor's network (Moran, 2005). It observes overall patterns of connections between actors, and the impersonal linkages between them set by roles, rules, precedents, and procedures in that social system's configuration (Uphoff and Wijayaratna, 2000). The relational dimension describes the personal relationships firms and the people within them have with each other (Claridge, 2018). Here, matters such as trust, obligations, and norms can influence an actor's behavior toward network members (Nahapiet and Ghoshal, 1998). As this dimension of social capital emerges from the intricate history of interactions unique to each actor involved, it becomes very difficult to imitate or trade (Ibid). From an RBV perspective, the inimitability aspect makes this intangible asset a useful resource for sustaining a competitive advantage (Fantazy and Tipu, 2018; Barney, 1991). Lastly, the cognitive dimension focuses on shared codes and language, where a similar narrative between members can give rise to joint goals (Krause et al., 2007).

3.1.2.2 Limitations of Social Capital

While social capital offers potential advantages to firms, it also carries inherent risk since an excessive focus on deep and over-committed relationships might delay necessary structural adjustments, ultimately impeding resilience (Pillai et al., 2017). In connection, social capital often implies high degrees of reliance and dependence on external members of the supply chain, thus increasing vulnerability to disruptions (Pettit et al., 2013; Mitreğa & Zolkiewski, 2012). It is therefore imperative for firms to develop capabilities to mitigate potential negative effects (Gölgeci and Kuvalainen, 2020).

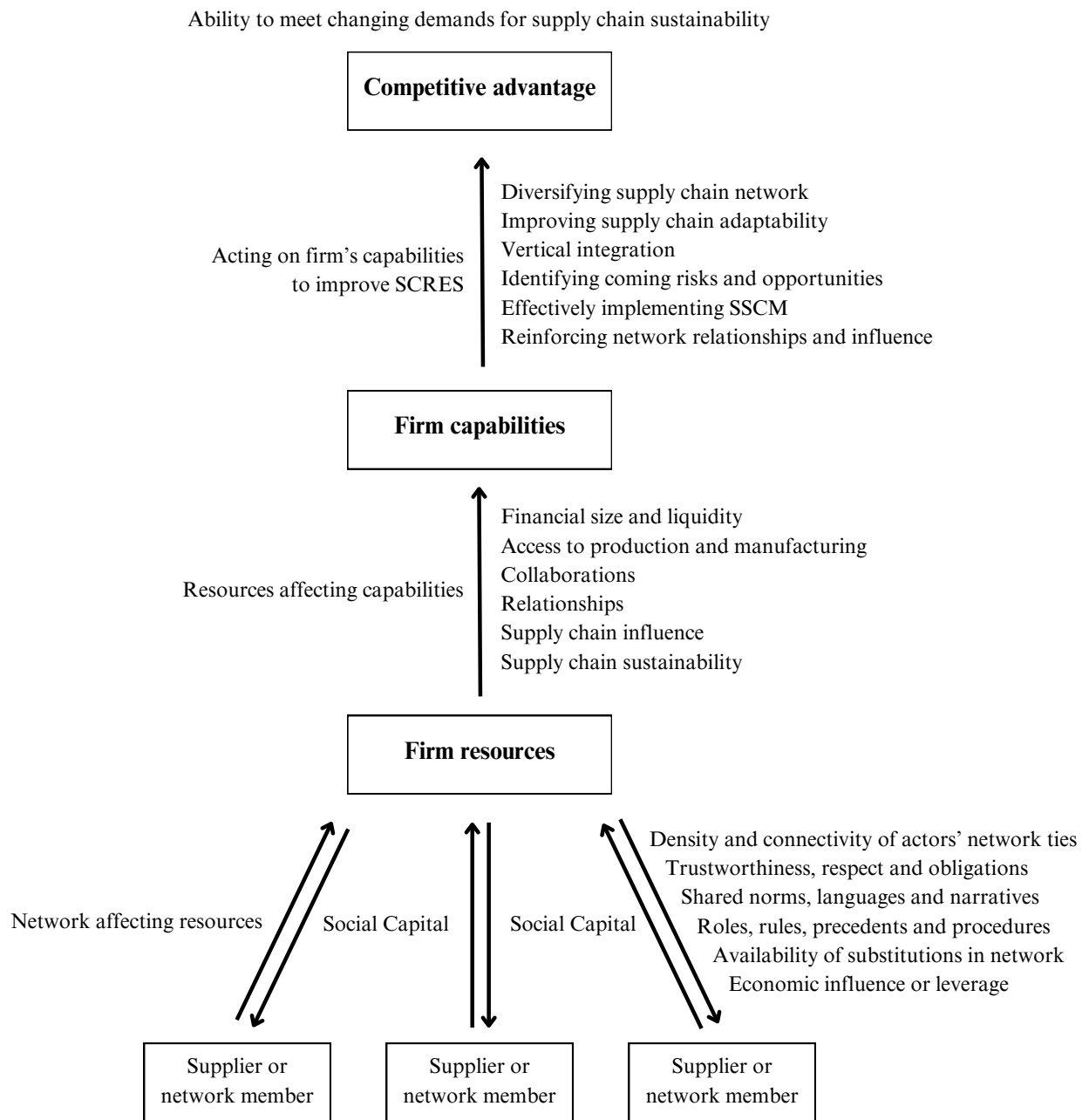
3.2 Theory Discussion

Although the theory provides a fitting framework for exploring supply chain abilities and practices for SCRES, there are several potential limitations of CRBV in the sustainable context of supply chain management. As the RBV theory is fundamentally based on the microeconomic principles of Ricardo, it implies that resources and capabilities are not

easily transferable (Kraaijenbrink et al., 2010). The contingent perspective addresses this reductionist view of the traditional RBV which essentially views firms as a collection of resources (Sanchez, 2008) as well as the need for coordination and deployment of resources to be able to build sustained competitive advantages. This expands the notion of competitive advantage depending solely on the resources themselves to incorporate an element of repeatable patterns of actions or capabilities.

Although the proponents of the RBV often respond to this by arguing that capabilities are included in the concept of resources, any resource-based view could still be criticized for being too broad in the sense that virtually everything from strategies to market position could be considered a resource (Sanchez, 2017). This makes it challenging to qualitatively differentiate between factors with distinct impacts on value creation and potential to build competitive advantages (ibid.). However, it could be argued that all resources stem from social and cognitive processes involving managers' interactions and decisions (Amit and Schoemaker, 1993). Thus, limitations of the RBV could be addressed by recognizing and discussing the importance of management choices and interactions in shaping and adapting to a dynamic environment (Sanchez, 2017).

Figure 3.1 Summary of theoretical framework, by Watkinson and Berselius Danared, 2024



4. Methodology

4.1 Research Design

4.1.1 An Abductive and Qualitative Process

This study has been conducted through an abductive approach, where the data collected from interviews is used to explore sustainability and SCRES among small firms. From the initial observation that firm resources and capabilities frequently vary with firm size, a continuous back and forth between the gathered data and theoretical framework was used to investigate the research gap. As the work seeks to identify patterns and themes from the data, the aim would then be to rationalize them through the study's conceptual framework in order to evaluate the chosen theories' relevance and applicability to the empirical findings. This non-linear movement between data and theory requires a certain flexibility that a purely inductive or deductive approach would not support (Saunders et al., 2019).

As the structure and circumstances of each small firm and its supply chain are intricate and unique, the most fitting method to gather data while accounting for these complexities is to use qualitative semi-structured interviews. The less rigid format of questioning means the interviewers get the chance to give follow-up questions, request further contextualization of more intricate topics for greater precision, and adjust the questions throughout to focus on the areas with a greater abundance of information or deviations for each individual firm. Meanwhile, the interviewee is more able to customize their answers to as accurately as possible express themselves. While this method allows for greater depth of data, it also means the interviews' procedures can slightly differ, affecting the comparability between them (Loh, 2013).

4.1.2 An In-depth Positivist Study

The study uses a positivist philosophy, where a more objective approach to observe the companies' features combined with the study's theoretical framework contributes to the overall understanding of the small firm's place in the true reality (Saunders et al., 2019).

While positivist methods are usually quantitative, the necessity for analytical depth and contextualization of aspects such as the effect of the firm-supplier relationship means that more in-depth interviews facilitate a greater ability to explain the current observed phenomena. With greater resources however, interviewing more firms with the same depth would likely increase overall accuracy of the conclusions made. While most structural and operational features of the investigated firms are distinctly objective, part of the relational aspect's research can be argued to indicate elements of human bias. However, as the study seeks to find resources and capabilities of the firms in the specified segment and context, the more social facets are still relevant factors for understanding the rules and precedents of the external system these firms operate within, while not altering the objective dimensions of the firms gathered in the interviews (Park et al., 2020).

4.1.3 A Cross-sectional Study on Small Firms

As the study aims to better understand SCRES amongst a market segment, multiple companies in that segment were interviewed to give a broader foundation of data. Only looking at a single firm, as with a case study, would likely weaken the work's ability to comment decisively on the overall market segment. Observing multiple firms instead gives the authors the opportunity to compare differences and spot themes to then consider when applying the theoretical framework.

4.2 Data Collection

4.2.1 Sampling of Participants

The study's data comes from interviews with eight individuals from different firms, all contacted through an email describing the aim of the study (see Appendix 2). The financial limitation of annual revenue below 50 million SEK (roughly €5 million) was set to keep the chosen firms comfortably within the EU's categorization of small enterprises (less than €10 million) and to include micro-sized firms (less than €2 million) (European Commission, 2003). Further intra-segmental variations did not affect the firms' eligibility, as the study aims to investigate the market segment as a whole. The participating firms varied greatly in age, growth, products, and business model,

emblematic of the segment's diversity. Given the small size of the companies, the most relevant interviewee was usually the CEO or store manager.

Finally, one of the respondents is the founder of a company whose significant growth has leapfrogged it from a small firm to an SME with over 300 million SEK in annual revenue. That slightly altered interview was with the intention to glean insights and hindsight about notable changes that can occur when a small firm grows.

Table 4.1 List of respondents

Pseudonym	Age	Gender	Firm revenue in 2023 (MSEK)	Year founded
Walter	64	Male	26	1994
Erik	26	Male	10	2019
Karl	59	Male	9.6	1949
Lina	59	Female	0.5	2019
Josefine	52	Female	0.6	2018
Tom	37	Male	3.5	2012
Mark	32	Male	19.4	2015
David	35	Male	320	2014

4.2.2 Interview Process

All interviews were conducted following an interview guide (see Appendix 3) in a semi-structured manner. Many questions included are fundamentally open to let the respondent approach it in a way they can answer it best. As questions were sometimes answered at the interpretation of the interviewee, the interviews almost always featured a lot of more follow-up questions that weren't preemptively included in the guide, strengthening the understanding of the data's context.

The location of the interviews was at all times at the discretion of the interviewees. Most respondents expressed that talking in person was preferred for comfort and clearer

communication, and the interviews generally lasted between 45 to 60 minutes (see Appendix 4).

4.3 Data Processing and Analysis

As all respondents had allowed for the interviews to be audibly recorded, the authors were able to listen over and transcribe them verbatim. As the transcripts are word-for-word copies of the interviews they are in Swedish. From going over the interview audios and transcripts, important viewpoints, distinct patterns, recurring themes and terms were translated into English to then be compared between the different interviews. This involved systematically observing their overall occurrence frequency, the context they appeared in, and the individual's reasoning in their responses relating to them. The subsequent overview of the data was an important factor when selecting relevant theories to include in the study's theoretical framework.

Table 4.2 Aggregate dimensions of the empirical data

Aggregate Dimensions	Second Order Themes
Supply chain network	Influence and control Collaboration and communication Replacing or changing suppliers
Market disruptions	Resources and capabilities for survival
Supply chain sustainability	Unpredictable changes in demand

4.4 Utilization of AI

AI has been used as an aid when translating quotes as well as to improve and refine texts. The tool used is ChatGPT for suggestions when grammatically improving and translating certain text excerpts (see Appendix 7).

4.5 Ethical Considerations and Implications

Any possible harm to participants or their right to privacy was meticulously considered. Every respondent was given a consent form (see Appendix 5) that stated the study's compliance with the EU's General Data Protection Regulation (GDPR) when handling personal data. The first email sent to the companies also clarified that nothing was mandatory, and that the interviewee would be allowed to end the interview at any point without any obligation to provide a reason. The location was also something that was entirely up to the interviewee, allowing them to choose an area they would feel safe in.

It was also made clear that they would be allowed to read their potential citations that the study intended to use, to then either validate or reject it. It was a key point to ensure the respondents unequivocally understood that nothing they were uncomfortable with sharing would be published.

4.6 Method Criticism

There are two notable criticisms of the study's methodology arguing opposite points. Firstly, the small sample of firms in a market segment that has hundreds of companies in Sweden alone may display certain variations or patterns a more accurate sample would not. While the firms interviewed display a large variety in products and business strategy, the study design does not capture potential variation in operations of firms in certain segments, such as firms specialized in leather and furs. However, the matter of intra-firm diversity of the position of the respondent selected for interview is helped by the market segment chosen to observe. As the sampled firms almost exclusively have between one and five employees, the interviewees all spend significant time in touch with both suppliers and their customer base.

On the other hand, one could question the applicability of the findings due to the sample being too diverse. Does a 75-year-old company losing revenue belong in the same category as a four-year-old company that has doubled its revenue every year it has existed? However, these differences found within the companies are accounted for with the qualitative and contextual nature of the study's reasoning. With diversity being a key

characteristic in the market segment of small-scaled fashion firms, it is reasonable that the sample selected would also display this quality.

Since consent was needed for the interviews, the firms agreeing to the authors' request might differ from those declining or not responding. There could be a correlation between the performance of a small firm and its willingness to discuss sustainability and resilience, thus the sample could be biased. Continued research of SCRES among small firms would be the main mitigation for this.

There are also complications to the credibility of the interviews, both because of human flaw and bias but also because of a potential language barrier. All interviews were conducted in Swedish, but the study requires citations to be in English. This means the authors have to translate the interviews, where slight deviations could occur between individuals in specific choice of words. While translated citations are shown to the interviewee for validation, the varying English proficiency could make it harder to recognize a quote as one's own. For the credibility of the interviews themselves, the measures mentioned in 4.2.2 and 4.5 were designed to make the respondents feel like they were in an environment where they could answer questions truthfully and make the empirical data as usable as possible.

5. Empirics

This section presents the empirical data divided into the contexts of growth, supply chain dimensions, disruptions, sustainability, and transparency for adequate depth to understand the intricacies of each empirical component.

5.1 Business Model and Growth

When asked about the effect the firm's growth has on its capacity to maintain the currently present aspects of sustainability in its business model, the respondents differed in what potential trade-off they saw in their firm.

“My business idea with [company name] is not primarily about making as much money as possible – we are still running at a huge loss, and that is okay. I want to build something that is truly sustainable – also sustainable in economic terms of course. [...] Some investors reached out at the beginning who were interested because they heard about [us] and were like, 'Oh, recycled, sustainable fashion, we want to invest,' but it was just about scaling up quickly... and I was like, no, no, no, the opposite!” – Josefine

However, not everyone shared this view on the prioritization of integrating sustainability in core operations as Erik explained that: *“Our biggest focus is on growing as a company, like expanding our team and increasing revenue, but when it comes to sustainability, in real terms – sure, I could spout some bullshit like 'we're trying to change the sewing thread' – but we're not doing that. The truth is that the way we've tried to improve is by becoming better at forward planning.”*

Tom highlighted how, when scaling up, his range of offerings would naturally have to broaden to include more materially wasteful ready-to-wear shirts besides the made-to-measure shirts he's exclusive to today: *“To grow – to make the company really big, I'm going to have to start making ready-to-wear so you can buy something like this here as well – like if you need a tuxedo shirt by tomorrow, you can buy it from me.”*

5.2 The Small Firm's Supply Chain

5.2.1 Supplier Network

As virtually none of the small firms belong to the lower-end price categories, quality was consistently a key selling point. Material was almost exclusively sourced from Italy and Portugal, where the majority of the manufacturing of the clothes also occurred.

Karl highlighted the importance of quality standards when choosing suppliers for jackets that can last for decades: *"We have certain standards for how it needs to be sewn and even in Italy there's quite few factories that can meet them. For our suits and jackets to last as long as they do they need to be sewn where that craftsmanship still lives on."*

Of the firms partially or exclusively outsourcing their production to China or India, costs and consistency were the most common reasons.

Erik said: *"We use Italian-sourced materials for our clothes, but then we send it to Asia where we can keep the labor costs down. People here don't know how technologically developed the factories and production is in China. The orders come fast; in Southern Europe they work very slowly. The craftsmanship is still high and it makes our product affordable."*

Lina, sole employee of the smallest firm interviewed, operates on very thin margins where controlling costs is crucial. *"In order for me to have the margins to continue financing my purchases, the price I buy at needs to be pretty low. You find more of that in Asia."*

5.2.2 Influencing Suppliers

The overall number of suppliers was very low, with many firms only having one or two suppliers of material and manufacturing respectively. While the suppliers' sizes varied significantly, the firms all experienced difficulties when working with large suppliers simultaneously producing for much bigger customers.

"We're pretty small, our suppliers have other customers. If someone suddenly wants a thousand pair of trousers, then the supplier buys in material and sews them. But if we need maybe twelve more pairs, they're not as interested in making that order. They might

offer a similar product, or you might have to wait until next year when you put in a bigger order.” – Walter

Erik shared this notion and stated: *“We obviously have much less purchasing power than their bigger customers. We get a higher unit cost and lower priority on our orders, and we have to wait longer for them.”*

The low number of suppliers was frequently motivated by the overall order sizes being too small to further divide up, as the firms’ influence with their suppliers was often weak enough as it was.

“[...] As a smaller company, we’re benefitting from deepening our relationship and becoming a bigger player with our main supplier, but you also want to spread out your production exposure. It’s a matter of risk. One day we might have to change that but for now, we’ve chosen to go more aggressively with fewer suppliers to enable us to get what we want.” – Mark

5.2.3 Choosing Suppliers

Significant care went into the process for many of the firms when deciding on a new supplier. Many hired experts to look for suppliers meeting very specific qualifications. Some completely halted production of certain goods for as much as a year until they found exactly the producer they wanted to work with. Many initially sought smaller suppliers that would be more used to handling small orders.

“It’s really really hard to find producers that are willing to make such tiny collections, virtually no one wants to. I found [the suppliers] through my contacts in the fashion industry. I have a woman who knows the Italian market, and she finds these places and acts as an intermediary for me.” - Josefina

The reason firms put such effort into this process was clarified when closer observing the firm-supplier relationship.

5.2.4 Relationship as a Resource

These small firms all displayed strong aspects of longevity and intimacy in their relationships with their suppliers. Every single firm still uses at least one supplier they had when the company was first created, from four years ago to 75. Most firms have committed notable time and effort to develop their relationships to be reciprocally more substantial.

“With some of the suppliers we’ve had for decades, we have this really streamlined way of communicating about orders. We can make adjustments quite easily, swap products that haven’t sold well, and if we really need to, we can sometimes send clothes back to be altered, even though financially it’s bad for them. I don’t think they let many of their customers do that.” – Walter

“As a still relatively small company, it’s beneficial for us to deepen relationships and become a bigger player with them, which we’ve managed with our main supplier. [...] As we’ve grown alongside our main supplier from day 1, they’ve also become more incentivized to foster our relationship. It’s helped us with price negotiations, and they’ve even started buying in certain materials exclusively for us.” – Mark

“I use a tiny supplier with an all-female workforce and a lovely owner. If I want to make the cuffs one centimeter higher on my socks, I can let them know. They’ll make a prototype, send it to me, and then they’ll adjust the procedure to make the new socks like that, no problem. Now with this smaller factory, there is a close dialogue - as a small actor with a bigger producer, that kind of request could take months to go through and I don’t think the dialogue would be as smooth or flexible.” – Josefine

Similarly, Karl also highlights how he prefers to work with smaller producers:

“I’m still looking for new suppliers and I prefer working with small companies.”

Tom, who has exclusively used one manufacturer in Portugal since his company first began production in 2014, said that the relationship is significantly aided by having a fellow Nordic on the other end.

“Their production manager is Finnish, which really facilitates working with them. I don’t mean to generalize but working with Southern Europeans in this industry can be troublesome. The way she and I work together is huge part of why this has worked so well and if we’d lose her, it would quickly go bad.”

Circumstances quickly going bad was not an unknown concept for the respondents.

5.3 Operating in Past Disruptions

Many of the firms established just before the Covid-19 pandemic had low enough overheads to be able to ramp down production and sales until the market started recovering. For the older firms heavily vested in their operations however, this shock had serious implications.

Karl, who exclusively sells through his 75-year-old store, said: *“We still haven’t recovered to pre-Covid sales. It was really tough, we wouldn’t have bought in as much if we’d known in time. We survived with support from our regular customers, and both our suppliers and us making sacrifices so we could get through it together.”*

“I’m still sitting on inventory from Covid. I’m working on shrinking it, but it’s hard because it’s just me [working]. Since I’m now buying less than before, my focus has shifted more to the uniqueness of the product.” – Lina

Tom’s company only manufactures a product once it has been sold to a customer. While this lengthens the timeline of the customer receiving their order by multiple weeks, it also decreases the firm’s exposure to inventory risks.

“We assume no production risk, all our products are already sold. Our liquidity was not tied up with an oversized inventory, so we could adjust almost weekly with the changing market needs as suits went out and polo shirts came in.”

Erik luckily issued his first collection mere months before the lockdowns began. However, as the market began recovering, his firm's tiny size garnered little attention from suppliers.

“Suppliers were clearly unprepared for the boom afterwards. Our producers in China were pretty fast but getting material from Italy was impossible. There was huge sudden demand, and no one was interested in selling to us that wanted such small volume. We temporarily changed our style and ordered more from England instead, but we definitely missed out on huge sales because of the delays.”

David on the other hand, who's firm was already selling for millions of euros through ecommerce, had much better access to cash, credit, and suppliers.

“We saw the opportunity, we changed our strategy to spend as much money as we could on online marketing and we ordered in greater quantities because of shipping shortages and the uncertainty of when factories would be shut down again. Both our material suppliers and producers in Asia were efficient in fulfilling our orders. Our revenue more than doubled in 2020.”

With the small firms expressing operational difficulties with moving into lower price categories, this segment immobility might enlarge the effects of economic disruptions.

“We notice decreases in people's willingness to buy nicer clothes during recessions, even if the price value is higher than with cheaper alternatives. We need to be in this segment to have similar margins as bigger firms, but it also means our potential fall is much greater.” – Walter

5.4 Sustainability and Transparency

5.4.1 Demands Placed on Suppliers

As these small firms generally lack sufficient financial leverage over their suppliers to actively change and enforce sustainability demands, the aforementioned selection process serves as the best time to find suppliers deemed sustainable enough. After that, frequent communication with the supplier and trust are key points in knowing the sustainability of

their materials and operations. But overall, the firms stated that influence with suppliers was limited, and that constantly ensuring certain standards is a resource-intensive task.

“A lot of our suppliers work with huge brands, and there’s often many [sustainability] requirements to get to supply them. We’re too small to take that fight, but we’re not afraid to. We can look into it if needs be. Because of our relationship with them, and the fact that most of them have a Swedish or Scandinavian agent, we can communicate quite directly.” – Walter

”As a small company you can sort of piggyback of your suppliers that you trust. They’ll report emissions and things like that, you can see the quality of their products and get a good idea of their standards from there. But it’s easier for companies like [bigger firm], because when they release their sustainability reports, they can say, “This year we went and did auditing.” They’ve done some sort of deep dive into their operations, spending about a week and a half at each of their 30 different suppliers. We just don’t have that capability; we’d go completely bankrupt if we had to spend time on that kind of thing.”
– Erik

A strategy most of the firms take to increase the transparency of their supply chain is to buy materials themselves, and then send it to their producer. Tom buys material with various certificates and then stores it in bulk with his sole producer.

“It’s my fabrics they’re using, so other than there’s really only like [improving] how much electricity the factory uses, and they can’t really do a lot about that.”

David notes how as his company has grown, it has become more able to finance processes that verify standards with its suppliers, such as calculating annual CO₂ emissions.

“We had our first supplier in Pakistan. Things were going fine but when we could finally do our first quality control it was nothing like [the supplier] had described it, and we moved on. Now we visit all factories every year and collaborate with sustainability consultants that go through everything in our company and supply chain.”

5.4.2 Future Changes

Finally, when asked to imagine a scenario where reporting changes similar to the EU's CSRD would become mandatory for small firms as well, the expressed preparedness varied. While all firms agreed that such reporting is generally good and intimated the presence of environmental sustainability in their products, sourcing, and business model, many indicated that it is rather an issue with liquidity and resource allocation for a firm of their size.

“It's easier for a bigger company to make sustainability reports. They can send auditors to each of their suppliers for maybe a week or two. We don't have that opportunity. Our entire revenue from sales goes toward financing next season's collection. We would go bankrupt if one of our two employees had to spend weeks backtracking in our supply chain.” – Erik

Mark, who similarly to Erik is with a company that is growing very fast, is partnered with supplier experts that handle the brunt of supply chain matters. As these collaborators are in close relation to the suppliers they use, they likely already have sufficient information for Mark's company to use in potential sustainability reports. However, he speculates that this service might induce additional costs.

Lina, whose business is not as profit-centered, says that while her focus on second-hand products is sustainable in and of itself, she cannot verify where and how each product was made.

6. Analysis

Grounded in the empirical material, the analysis aims to answer how the small fashion firms meet the external demands for supply chain sustainability, as well as manage their dynamic and unpredictable nature. The resources, capabilities, and activities in their relation to the SCRES of the firms are analyzed through the theoretical framework of RBV and their connectivity to the three dimensions of social capital: structural, cognitive, and relational.

6.1 Structural Dimension of the Small Firm

Small firms often work in a smaller and more densely connected network, with few suppliers and individual collaborators. Despite their individual efforts for survival, innovation, and growth, the configuration of the social system and networks that fashion retailers operate within in many ways obstruct resiliency progressions for smaller firms.

6.1.1 Liquidity and Time Frame

While the fashion industry values investments in market research with longer planning horizons to better anticipate future changes in demand, small firm's low liquidity makes financing this a challenge. All of the small firms, even those experiencing significant growth, displayed a dependency on their operational income to directly fund future operational expenses, such as production, shipping, and facilities. While this forcibly shortens their time frame, possibly making them less prepared for coming threats and opportunities, it also makes the potential effect of regulatory changes more implicative. Currently, the firms cannot afford to diverge funds from their direct operations to gather and report data from their supply chain network. However, should this become a legal requirement, that expense would in effect become an obligatory cost of operation. In an increasingly dynamic environment, this myopic focus on financing current operations and growth can make a firm and its supply chain poorly prepared for changes, an ability the CRBV underscores as crucial for sustaining competitive advantages.

6.1.2 Influencing Suppliers

The abundance of small firms requiring materials and production, coupled with their small order sizes, often renders them replaceable for suppliers. In addition, their inability to exert significant financial influence over large suppliers frequently relegates them to lower priority in the customer pecking order. Due to their low purchasing power, their orders thus become less adjustable and processed slower, and demanding change becomes less effective when coming from such a small portion of the supplier's revenue source.

While variation occurs, the smaller firms generally do not have particularly diversified supply chains, with many only having one supplier per product type. While the firm's total financial output remains unchanged, centralizing purchases on fewer suppliers means the relative influence they can leverage in their network grows substantially. This could synergize with the small firms' general preference of working with smaller suppliers, as they represent a larger portion of their supplier's total sales, easing the process of influencing changes.

However, narrowing one's network to increase control of adaptive measures within it comes with new exposures to disruption. With the historic importance of supply chain diversification, small firms are now more exposed to idiosyncratic factors in the firms they collaborate with. While a supplier might be more incentivized to meet the demands of a comparably larger customer this way, any inability to meet suddenly crucial standards would immediately render a significant portion of that firm's supply chain useless. LOGs can increase control of their more diversified supplier base by vertically integrating into partial ownership of important suppliers, creating greater overlap of objectives and shared goals. However, for the less liquid small firms, there generally seems to be a trade-off between the diversification and influence of their supply chains, two important capabilities for resilience.

6.2 Cognitive Dimension of the Small Firm

The cognitive dimension highlights how small firms often prioritize collaborating with supply chain members sharing the same culture, language, and values to build effective communication.

6.2.1 Bridging Communicative Barriers

The firms show an overall preference to collaborate with Swedish or Nordic members of their suppliers, with whom they share a more similar language and narrative. Across the firms, there is also an established shared vocabulary surrounding the importance of quality standards, craftsmanship, and communication, developed during the long time the parties have worked together. Narratives from the small firms' meticulous supplier selection, investment in relationship-building, and the cooperative measures when surviving disruptions like the Covid pandemic reinforce the importance of a common cognitive framework. When the virtually daily communication is done between two parties with a shared language or operative norms, the firms express it as a bridge that eliminates certain issues that arise when working with network members of different cultures and codes. This commonality in communication enables smoother interactions which allows for faster responses in the supply chain, ultimately enhancing supply chain resilience.

6.3 Relational Dimension of the Small Firm

Connecting the cognitive and structural dimensions, small firms maximize social capital from the intimate relationships they have with many of their suppliers, to subsequently generate valuable resources. These relationships come with implications concerning primarily firm flexibility and supply chain transparency. This highlights how even the advantages obtained through their high collaborative capability come with a price.

6.3.1 Relations Generating Firm Resources

Where small firms manage to render much more valuable resources from their social capital is in the more personal aspects of their firm-supplier relationships. Through the

careful selection process and nature of many relationships, the small firms gain many beneficial resources not exclusively motivated by financial performance. With the frequent communication made possible by having fewer more long-term suppliers, subsequent mutual trust and respect is often significant enough to alter their daily operations. The older firms especially can use informal perks to adapt to unforeseen changes, such as short-term adjustments to products or even order sizes. The incentive for the supplier likely comes from the relationship's collaborative social capital, where the operational efficiencies they have developed together is a mutual resource alongside the financial payments received. The small firms therefore seem to some extent be able to compensate for their low financial influence on suppliers by having deeper supplier relationships. While the complexity of the relationships and resources they produce makes it a tough competitive advantage for competitors to easily imitate, the benefits also come with a significant commitment to the supplier.

6.3.2 Implications on Firm Flexibility

While the smaller and especially younger firms showed resilient capacities in their business model, such as ramping down when demand crashes, their agility is sometimes hampered by the nature of their supply chain relationships. The slow process and significant commitment made when choosing a supplier means certain changes are hard to perform efficiently. On the other hand, when using a less relationally committed strategy, suppliers are seen as preferring larger customers. With small firms needing time to develop more advantageous relationships with their suppliers, they essentially create an entry barrier for acquiring a new one good enough to sustain the social capital they gain from their current long-term supplier. As the small firms' low liquidity generally keeps their time horizon short, an inability to restart the long-term investment of a new supplier might be the reason why the observed firms generally struggle with the flexibility and speed of their supply chain.

6.3.3 Supply Chain Transparency

The lack of time and resources also makes it hard for small firms to verify sustainability standards even in their less diversified supply chains. Instead, much of the supply chain knowledge relies on relational trust and deduction. While a supplier working with bigger

firms that regularly audit their supply chain is a good signal, the fact remains that smaller firms often cannot verify exact information. This has implications on the small firm's capacity for implementing and maintaining SSCM. Contrastingly, the observed SME could use its greater resources to take a more proactive approach to its network's SSCM, helping it adapt more efficiently to external disruptions.

A common measure for the smaller firm is to make its supply chain flatter. Most of the small firms buy certified materials themselves, and in turn send it to their producers. Thereby, they increase transparency as they can become more capable of confirming sustainability aspects of their products; a similar process to a LORG that vertically integrates. If done right, this gives the firm better control of its supply chain's material sourcing without compromising the production side, making it overall more flexible when facing contingencies. While the CRBV sees this as an advantageous attribute to strive for, the small firm's current dependency on external verifications and trusting its suppliers makes it more vulnerable to certain standards not being met without repercussions. Should auditing or reporting regulation become stricter, both its cost and the potential findings could threaten the firm.

7. Discussion

7.1 Revisiting the Research Question

With the notable presence of European-sourced or recycled materials and the relatively long lifespan of higher quality goods frequently found among them, the small firms interviewed in this study generally display a comparably strong ability to meet the current sustainability demands they face. This does, however, seem to vary between the firms as their overall business models and focus on growth, profitability and sustainability differ. The more concerning signals instead stem from the dynamic aspect of sustainability demands when answering the question:

How are small firms' supply chain resilience affected by the increasingly dynamic demands for sustainability?

As visualized in Appendix 6, much of the small firm's activities deemed necessary for meeting current demands hampers its capabilities for SCRES toward future contingencies in its environment. As they lack resources such as purchasing power, many small firms shrink their supplier network, contrasting current research's perceived value and resilience from diversifying one's supply chain. Similarly, their low liquidity sees much more focus go into current operations and changes, and less into the anticipation and preparation for more distant possibilities.

While a concentrated supply chain may bear risks, the small firms' collaborative capabilities generate beneficial social capital from the relationships with their fewer suppliers. Through the careful selection of suppliers with more overlapping narratives, language and norms, the subsequent long-term maintenance of the relationships generates valuable social capital through trust and shared goals. While small firms manage to gain useful resources this way without having to increase spending, the time and commitment required for the relationship to become mutually beneficial means it is hard to replace. As the complex relational resources are not immediately present with a new supplier, the

already concentrated supply chain may not be adaptable enough when facing certain disruptions.

Summarized in Appendix 6, as small firms focus more on meeting present external demands, the usage of firm resources and capabilities constructs a supply chain network generally less characterized by the SCRES features argued to reinforce the sustained ability to handle disruptive changes in future sustainability demands.

7.1.1 Discussion of Limitations

Limitations of this study mainly encompass the sample size and selection process. Although efforts were made to secure a representative sample of small firms within the fashion industry, e.g. firms of different ages and business models, the size of the study could be expanded to improve transferability and robustness of the findings. While the Swedish firms contacted were geographically dispersed, all firms that accepted are based in Stockholm. This could mean the findings miss the potential effect being urban or rurally based as a business can have.

7.1.2 Suggestions for Further Research

During the gathering of empirical data, certain other variables suggested to have potentially moderating effects on the firm's sustainability and SCRES. For instance, the younger firms generally displayed greater adaptability of their supply chain and business model in response to previous disruptions. Further researching firm age's effect on resources and capabilities for SCRES and sustainability-related disruptions could increase the overall understanding of which firm variables that could be influential. While only two women were interviewed, they were the least willing to sacrifice sustainability aspects of their business model to increase profitability, and were the most long-term planners despite having the lowest revenues. The effect of firm leader's gender could therefore be further investigated in the context of structuring a supply chain for resilience toward changes in sustainability.

7.2 Conclusion

Modern times have seen sustainability grow to become one of the biggest factors for shaping many industries' business environment. As demands grow and shift increasingly rapidly, the unpredictability poses massive implications on modern firms and their preparedness. With the Corporate Sustainability Reporting Directive as a catalyzer for future changes in European sustainability standards, the authors set out to investigate how the dynamic demands affect the supply chain resiliency of a surprisingly under researched segment: small firms. Applying a resource-based view capable of observing the resources, capabilities, and activities of fashion firms in contextually unique circumstances, the authors gained a greater understanding of supply chain resilience in small firms operating in such dynamic environments. While small firms display some rare capabilities such as their collaborative and committed supplier relationships that generates valuable perks and resources, their supply chain's susceptibility to shocks still seems to be greater than current research suggests. With overconcentrated supply networks and a myopic focus on operations being common strategies for small firms to increase supply influence and performance in the short-term, the leveraged structure combined with the informal nature of their perks creates vast exposure and risk. As an insufficient understanding of just a portion of an environment can endanger every actor in that network, the ability for regulators and consumers to adequately understand the effect of additional external pressures is crucial. This study therefore provides valuable insights into the effect current sustainability demands have on small firms' supply chain resilience toward the disruptions of tomorrow.

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Appendix 1: Size Requirements for CSRD

“On 5 January 2023, the Corporate Sustainability Reporting Directive (CSRD) entered into force. It modernises and strengthens the rules concerning the social and environmental information that companies have to report. A broader set of large companies, as well as listed SMEs, will now be required to report on sustainability. Some non-EU companies will also have to report if they generate over EUR 150 million on the EU market.” – European Commission, 2023

The commission of the European Union classifies a company’s size having the staff headcount and either the following turnover or balance sheet total:

Company category	Staff headcount	Turnover	Balance sheet
Large	>250	>€50m	>€43m
Medium-sized	50-250	€10m-€50m	€10m-€43m
Small	10-50	€2m-€10m	€2m-€10m
Micro	<10	<€2m	<€2m

European Commission, 2003

Appendix 2: Email

English

Hi,

Hope all is well with you!

Our names are Daniel Watkinson and Siri Berselius Danared and we're studying at Stockholm School of Economics. We're currently writing our bachelor thesis in management. We're investigating Supply Chain Resilience among smaller clothing companies to see how you use resources and capabilities to handle external risks and opportunities in modern sustainability.

Is there any chance that someone in your company could speak with us in a meeting, where you can tell us about the structure of your supply chain and what you do to guarantee the quality of your products? We are incredibly flexible with when the meeting would be, completely after your availability. We can come to you if it helps, or we can give you a link for an online meeting. The interview will probably take about 45 to 60 minutes. We would be uncritically thankful for your insights into the market.

The thesis follows GDPR regulations very strictly. Both the company and person would be completely anonymous and all notes from the interview will be deleted when the thesis is completed.

Thank you for your time and we hope to hear from you!

Kind regards,

Daniel Watkinson | 25269@student.hhs.se | 070-870[XXXX]

Siri Berselius Danared | 25483@student.hhs.se | 072-366[XXXX]

Swedish (Original)

Hej,

Hoppas allt är väl med er!

Vi heter Daniel Watkinson och Siri Berselius Danared och studerar på Handelshögskolan i Stockholm. Just nu skriver vi vår kandidatuppsats i management. Vi undersöker Supply Chain Resilience (motståndskraft) hos mindre klädbolag för att se

hur ni använder resurser och förmågor för att hantera externa risker och möjligheter inom modern hållbarhet (sustainability).

Finns det någon chans att någon inom ert bolag skulle kunna talas vid med oss i ett möte, där ni kan berätta lite om strukturen av er leverantörskedja och vad ni gör för att garantera kvaliteten av era produkter? Vi är otroligt flexibla med när mötet skulle vara, helt efter er tillgänglighet. Vi kan komma till er om det underlättar, eller bara ge er en länk för ett möte online. Intervjuen tar förmodligen runt 45 till 60 minuter. Vi skulle vara otroligt tacksamma för er insikt i marknaden.

Uppsatsen följer GDPR reglerna väldigt strikt. Både bolaget och personen skulle vara fullständigt anonyma och alla anteckningar från intervjun kommer raderas vid uppsatsens fulländning.

Tack för er tid och vi hoppas att höra från er!

Med vänlig hälsning,

Daniel Watkinson | 25269@student.hhs.se | 070-870[XXXX]

Siri Berselius Danared | 25483@student.hhs.se | 072-366[XXXX]

Appendix 3: Interview Guide

English

1. Could you tell us a bit about yourself and (company)? What do you make, and where do you sell your products?
2. What are your key selling points/main skills and capabilities?
3. How large is the company currently? What are your sales, and how many employees do you have?
4. Can you provide an overview of how your products are made? Where do you source the materials, how are they manufactured, where are the clothes sewn, and where are they sold?
5. What is the status of your inventory? Are orders placed frequently with your suppliers, or do you have a large warehouse in Sweden?
6. Could you tell us about your material suppliers? How many do you have? How long have you been working with them, do you have any contracts with them? How often do you communicate, and how did you choose them?
7. (if applicable) Could you tell us about your suppliers of the finished product? How many do you have? How long have you been working with them? Do you have any contracts with them? How often do you communicate, and how did you choose them?
8. How does your company approach sustainability? Both regarding the environment (emissions, harmful materials, etc.) and socially (child labor, working conditions). What means does your company have to verify certain standards with its suppliers?
9. Have you noticed differences in how the largest clothing companies operate compared to smaller ones? Related to production/shipping/sustainability.
10. Do you see any issues in modern business culture/norms or regulations related to opportunities for smaller clothing companies?
11. Are you working with any partnerships/collaborations to develop resources/capabilities to increase competitiveness?
12. How do you balance cost-saving (possibly more short-term) and investing in long-term sustainability? Is it a trade-off? Have you seen any changes as the company has grown?
13. Do you see any correlation between increased sustainability and resilience in your value chain?
14. How do you maximize sustainability in your value chain?
15. Do you plan in any way for certain external risks? (Risks can be anything, such as the Covid-19 pandemic, shifting customer demand, sudden increases in material costs, etc.)
16. Can you tell us about your experience during the Covid-19 pandemic?
17. Did your company feel any effects from Brexit?

18. Any sustainability goals/Sustainable Development Goals (SDGs) you focus on specifically? Why?
19. How do you work with sustainability reporting? Do you see a shift where higher demands are placed - does it mean a transition for you?
20. How do you measure/assess the sustainability of your value chain and products?

Swedish (Original)

1. Skulle du kunna berätta lite om dig själv och (företag)? Vad gör ni för något, var säljer ni det?
2. Vad är era key selling points/ viktigaste tillgångar och förmågor?
3. Hur stort är bolaget just nu? Hur mycket säljer ni, hur många anställda har ni?
4. Kan du beskriva överblickande hur era produkter görs? Var får ni materialet ifrån och hur tillverkas det, var sys kläderna och varifrån säljs dem?
5. Hur ser det ut med lager? Lägg orders in frekvent med era leverantörer eller har ni ett stort eget lager i Sverige?
6. Kan du berätta lite om era leverantörer av material? Hur många har ni? Hur länge har ni haft dem, har ni eventuella kontrakt med dem? Hur ofta kommunicerar ni? Hur kom ni att välja dem?
7. (om applicerbart) Kan du berätta lite om era leverantörer av den färdiga produkten? Hur många har ni? Hur länge har ni haft dem? Har ni eventuella kontrakt med dem? Hur ofta kommunicerar ni? Hur kom ni att välja dem?
8. Hur ser ert bolag på hållbarhet? Både gällande miljö (utsläpp, skadliga material etc.) men även socialt (barnarbete, arbetsvillkor). Vilka medel finns det för ett bolag som ert att kunna verifiera vissa standards hos sina leverantörer?
9. Har ni observerat skillnader i hur de allra största klädbolagen opererar jämfört med mindre klädbolag? Relaterat till produktion/frakt/hållbarhet.
10. Ser ni några problem i modern affärskultur/ normer eller regleringar som relaterar till möjligheter för mindre klädbolag?
11. Jobbar ni med några partnerskap/samarbeten för att utveckla resurser/förmågor att öka konkurrenskraft?
12. Hur hanterar ni balans mellan att spara in på kostnader (ev mer kortsiktigt) och att satsa på långsiktig hållbarhet? Är det en trade-off? Har ni sett någon förändring i takt med att företaget har växt?
13. Ser ni något samband mellan ökad hållbarhet och motståndskraft (resilience) i er värdekedja?
14. Hur går ni tillväga för att maximera hållbarhet i er värdekedja?

15. Planerar ni på något sätt för vissa externa risker? (Risker kan vara vadsomhelst, säg pandemin från Covid-19, skiftande efterfrågan från kunder, ett visst material blir plötsligt dyrare etc.)
16. Kan du berätta om vad som hända för er under Covid pandemin?
17. Märkte ert företag av Brexit?
18. Något hållbarhetsmål/Sustainable Development Goal (SDG) ni fokuserar särskilt på? Varför?
19. Hur arbetar ni med hållbarhetsrapportering? Ser ni ett skifte där högre krav ställts - innebär det en omställning för er?
20. Hur mäter/ bedömer ni hållbarheten av er värdekedja och produkter?

Appendix 4: Table of Interviews

Respondent	Position	Date	Length	Interview
Walter	Store Manager	2024-04-04	64 minutes	In person
Erik	Founder-CEO	2024-04-04	54 minutes	Video call
Karl	Owner-CEO	2024-04-08	45 minutes	In person
Lina	Founder-CEO	2024-04-08	31 minutes	Audio call
Josefine	Founder-CEO	2024-04-11	45 minutes	In person
Tom	Founder-CEO	2024-04-19	22 minutes	In person
David	Founder	2024-04-19	60 minutes	Audio call
Mark	Founder	2024-04-22	48 minutes	In person

Appendix 5: Participant Consent Form



Consent to participation in student's survey / interview

The student's project. As an integral part of the educational program at the Stockholm School of Economics, enrolled students complete an individual thesis. This work is sometimes based upon surveys and interviews connected to the subject. Participation is naturally entirely voluntary, and this text is intended to provide you with necessary information about that may concern your participation in the study or interview. You can at any time withdraw your consent and your data will thereafter be permanently erased.

Confidentiality. Anything you say or state in the survey or to the interviewers will be held strictly confidential and will only be made available to supervisors, tutors and the course management team.

No personal data will be published. The thesis written by the students will not contain any information that may identify you as participant to the survey or interview subject.

Secured storage of data. All data will be stored and processed safely by the SSE and will be permanently deleted when the projected is completed.

Your rights under GDPR. You are welcome to visit <https://www.hhs.se/en/about-us/data-protection/> in order read more and obtain information on your rights related to personal data.

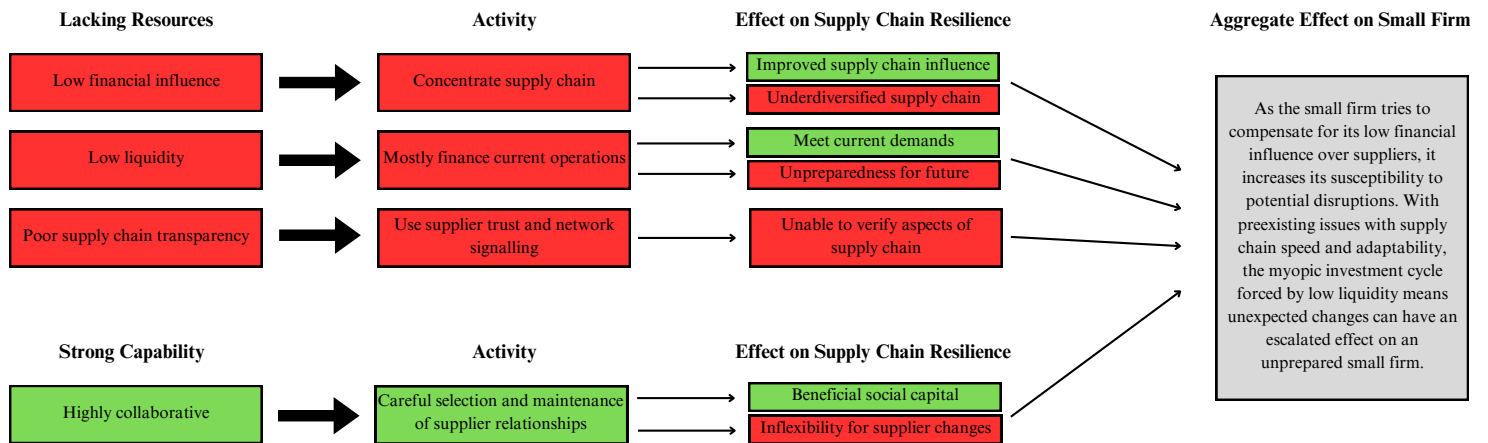
Project title	Year and semester
Sew Far, Sew Good	Spring 2024
Aim of the study	
Understanding how smaller-scaled clothing brands strategize for sustainability and resilience in their supply chain.	
Students responsible for the study or interview	
Daniel Watkinson & Siri Berselius Danared	
Supervisors and department at SSE	Supervisor e-mail address
Anna Söderblom DMO	anna.soderblom@hhs.se
Type of personal data about you to be processed	
We will not be collecting any sensitive data. Our focus is on the company itself, its supply chain and strategy. We may verify interviewee age and sex, the total number of employees or annual revenue, but it would not involve any information about the employees themselves.	

I have taken part of the information provided above and consent to take part in this study:

Signature	Place and date
Name	

Appendix 6: Comprehensive Summary of Analysis

Figure 9.1 Aggregated effect of small firm resources, capabilities and activities when facing external demands for supply chain sustainability, by Watkinson and Berselius Danared 2024



Appendix 7: Utilization of AI

The completion of this thesis involved the utilization of the AI tool ChatGPT by one of the authors which was employed for two purposes: aiding in the translation of quotes and refining the text for grammatical improvements. The integration of the AI tool has contributed to increased quality of the work by facilitating more accurate translations as well as to refine certain sentences to ensure clarity. Furthermore, using AI tools comes with inherent risks such as potential inaccuracies and concerns related to data privacy and security. However, to mitigate these risks, critical oversight and evaluation were consistently employed to verify the accuracy and appropriateness of the suggestions provided by the tool. In addition, no sensitive data was processed through the AI tool. Finally, the integration of these tools in thesis writing has provided various insights into potential benefits, such as increasing accuracy, of using such technology in academic writing.